

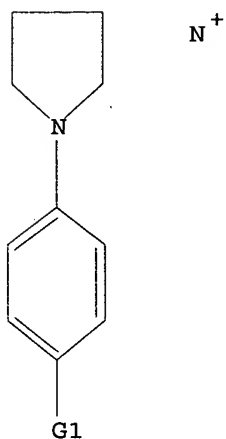
=> d his

(FILE 'CAPLUS' ENTERED AT 09:03:08 ON 28 NOV 2005)
DEL HIS

FILE 'REGISTRY' ENTERED AT 09:26:13 ON 28 NOV 2005
L1 STRUCTURE UPLOADED
L2 4 S L1
L3 203 S L1 FULL

FILE 'CAPLUS' ENTERED AT 09:26:51 ON 28 NOV 2005
L4 28 S L3

=> d que l4 stat
L1 STR



G1 NH₂,NO₂

Structure attributes must be viewed using STN Express query preparation.

L3 203 SEA FILE=REGISTRY SSS FUL L1
L4 28 SEA FILE=CAPLUS ABB=ON PLU=ON L3

=> d 1-28 ibib iabs hitstr

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:673828 CAPLUS
 DOCUMENT NUMBER: 143:179089
 TITLE: Hair dye composition containing an alcohol oxidase and
 a cationic oxidation base for dyeing keratin fibers
 INVENTOR(S): Plos, Gregory
 PATENT ASSIGNEE(S): L'Oreal, Fr.
 SOURCE: Fr. Demande, 48 pp.
 CODEN: FRXXBL
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2865388	A1	20050729	FR 2004-775	20040128
EP 1559412	A1	20050803	EP 2005-290126	20050120

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU

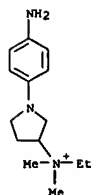
PRIORITY APPLN. INFO.: FR 2004-775 A 20040128

OTHER SOURCE(S): MARPAT 143:179089

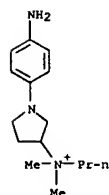
ABSTRACT:
 A composition for the dyeing of keratinous fibers, in particular of human keratinous fibers such as the hair, contains at least an alc. oxidase enzyme, a substrate for this enzyme, and at least a cationic oxidation base. A hair dye contained [1-(4-aminophenyl)-pyrrolidin-3-yl]-trimethylammonium chloride 3x10⁻³ mole, ethanol 25 g, meta-aminophenol 3x10⁻³ mole, alc. oxidase 20000 units, 2-amino-2-methyl-1-propanol q.s. pH = 7, and water q.s. 100 g.

IT 435275-61-9 435275-62-0 435275-65-3
 435275-66-4 435275-67-5 435275-68-6
 435275-69-7 435275-70-0 435275-72-2
 435275-74-4 435275-82-4 607355-12-4
 607355-13-5 607355-16-8 607355-17-9
 607355-18-0 607355-20-4 607355-21-5
 607355-22-6 607355-23-7 603202-08-4
 701975-01-1 701975-08-8 701975-09-9
 701975-10-2 701975-11-3 701975-12-4
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 701975-24-8 701975-25-9 701975-26-0
 701975-27-1 701975-28-2 701975-29-3
 701975-30-6 701975-31-7 701975-34-0
 701975-35-1
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dye composition containing alc. oxidase and cationic oxidation base for dyeing keratin fibers)
 RN 435275-61-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide (9CI)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

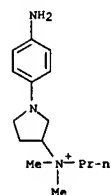
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RN 435275-62-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, iodide (9CI) (CA INDEX NAME)

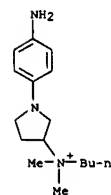
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RN 435275-65-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

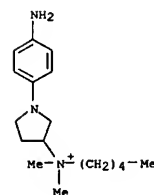
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RN 435275-66-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-butyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

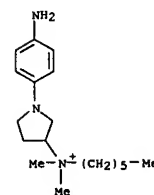
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RN 435275-67-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-pentyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

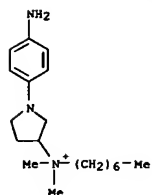
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RN 435275-68-6 CAPLUS
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 (CA INDEX NAME)

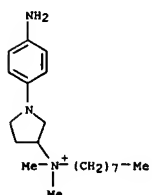
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RN 435275-69-7 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-heptyl-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

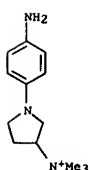
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RN 435275-70-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-octyl-, iodide (9CI)
 (CA INDEX NAME)

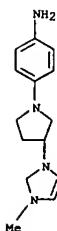
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RN 435275-72-2 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-decyl-, iodide (9CI)
 (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

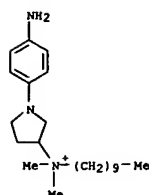
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RN 607355-12-4 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI)
 (CA INDEX NAME)

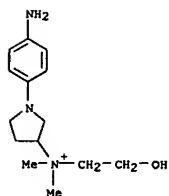
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-13-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-(3-(trimethylsilyl)propyl)-, chloride (9CI)
 (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

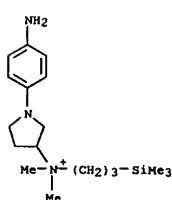
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RN 435275-74-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-(2-hydroxyethyl)-, iodide (9CI)
 (CA INDEX NAME)

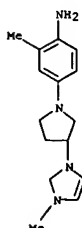
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RN 435275-82-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, chloride (9CI)
 (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

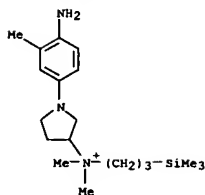
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RN 607355-16-8 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI)
 (CA INDEX NAME)

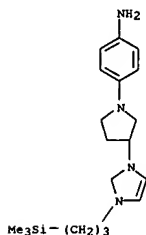
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-(3-(trimethylsilyl)propyl)-, chloride (9CI)
 (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

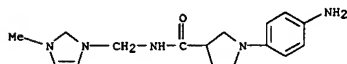
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RN 607355-18-0 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

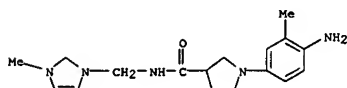
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-20-4 CAPLUS
 CN 1,3'-Bipyrrolidinium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

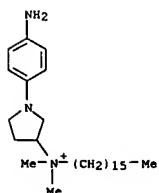
L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-23-7 CAPLUS
 CN 1H-Imidazolium, 1-[1-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]carbonyl]amino]methyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

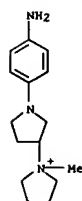
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
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 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-hexadecyl-N,N-dimethyl- (9CI) (CA INDEX NAME)

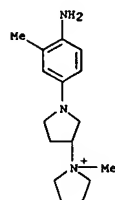


RN 701975-01-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-tetradecyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

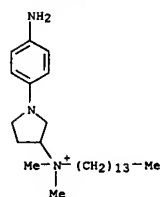
● Cl⁻

RN 607355-21-5 CAPLUS
 CN 1,3'-Bipyrrolidinium, 1'-(4-amino-3-methylphenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

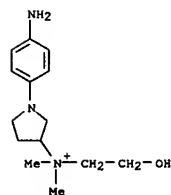
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RN 607355-22-6 CAPLUS
 CN 1H-Imidazolium, 1-[[[1-(4-aminophenyl)-3-pyrrolidinyl]carbonyl]amino]methyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

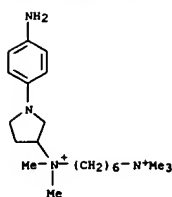
● Br⁻

RN 701975-08-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

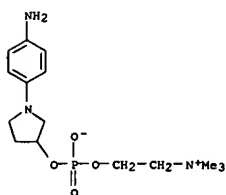
● Cl⁻

RN 701975-09-9 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-aminophenyl)-3-pyrrolidinyl]-N,N,N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

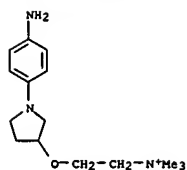
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RN 701975-10-2 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

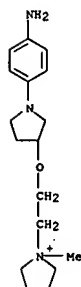


RN 701975-11-3 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

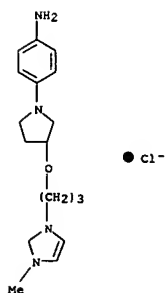
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RN 701975-12-4 CAPLUS
 CN Pyrrolidinium, 1-[2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

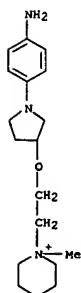
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RN 701975-13-5 CAPLUS
 CN 1H-imidazolium, 1-[3-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

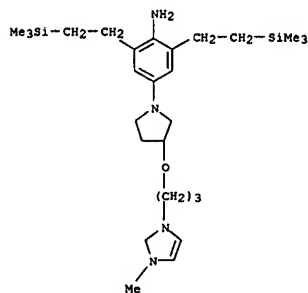
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-14-6 CAPLUS
 CN Piperidinium, 1-[2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

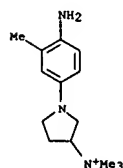
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RN 701975-15-7 CAPLUS
 CN 1H-imidazolium, 1-[3-[[[1-(4-amino-3,5-bis[(2-(trimethylsilyl)ethyl]phenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

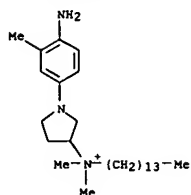
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-16-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

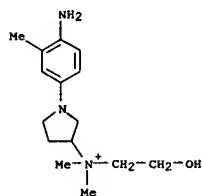
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RN 701975-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-tetradecyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

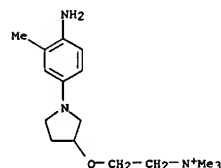
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RN 701975-20-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

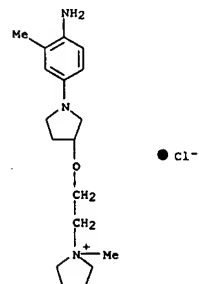
● Cl⁻

RN 701975-21-5 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

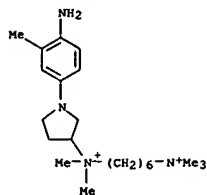
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RN 701975-24-8 CAPLUS
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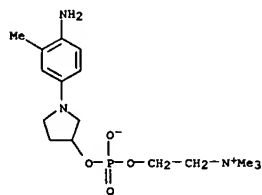
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RN 701975-25-9 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

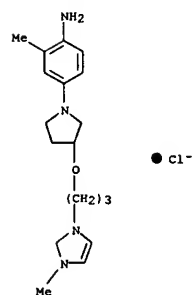
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RN 701975-22-6 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

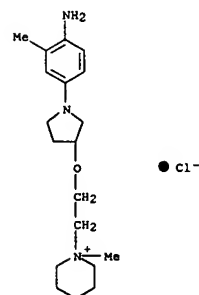


RN 701975-23-7 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

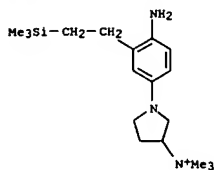
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-26-0 CAPLUS
 CN Piperidinium, 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

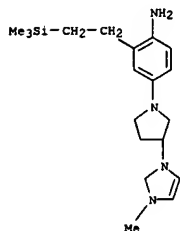
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RN 701975-27-1 CAPLUS
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L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

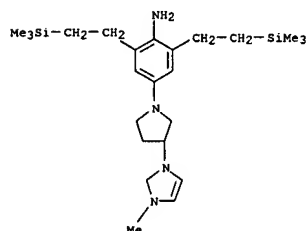
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RN 701975-28-2 CAPLUS
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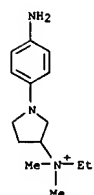
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-29-3 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-[4-amino-3-(2-(trimethylsilyl)ethyl)phenyl]-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-34-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

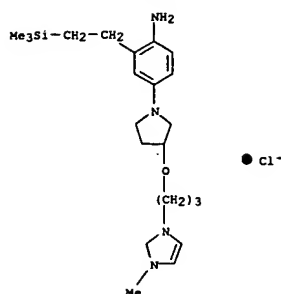
● Cl⁻

RN 701975-35-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

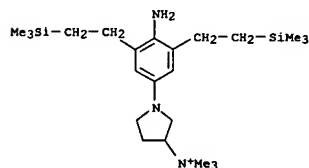
CRN 435275-63-1
 CMF C15 H26 N3

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

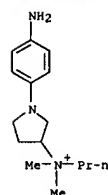
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 701975-30-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

RN 701975-31-7 CAPLUS
 CN 1H-Imidazolium, 1-[1-[4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl]-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

CRN 21228-90-0
 CMF C H3 O4 S

Me-O-SO₃⁻

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:467804 CAPLUS

DOCUMENT NUMBER: 143:7491

TITLE: Process for the preparation of p-phenylenediamines comprising pyrrolidines substituted by nitrogen radicals and their intermediates via

cyclocondensation

of p-substituted anilines with 1,4-dihalo-2-butanols

INVENTOR(S): Bordier, Thierry; Xu, Jinzhu

PATENT ASSIGNEE(S): L'oreal, Fr.

SOURCE: Eur. Pat. Appl., 41 pp.

CODEN: EPKXDW

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1535905	A1	20050601	EP 2004-106117	20041126
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU				
FR 2862969	A1	20050603	FR 2003-50939	20031128
US 2005209466	A1	20050922	US 2004-995558	20041124
PRIORITY APPLN. INFO.:			FR 2003-50939	A 20031128

OTHER SOURCE(S): MARPAT 143:7491

GRAPHIC IMAGE:

L4 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

monohydrochloride 852615-65-7P, [1-(4-Amino-3-

methylphenyl)pyrrolidin-3-yl]trimethylammonium chloride Dihydrochloride

AL: IMY (Industrial manufacture); SPN (Synthetic preparation); PREP

(Preparation)

(prepn. of p-phenylenediamines comprising pyrrolidines substituted by

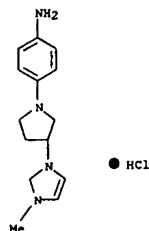
nitrogen radicals and their intermediates via cyclocondensation of

p-substituted anilines with 1,4-dihalo-2-butanols)

RN 607354-86-9 CAPLUS

CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride,

monohydrochloride (9CI) (CA INDEX NAME)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 607354-98-3 CAPLUS

CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-,

chloride, monohydrochloride (9CI) (CA INDEX NAME)

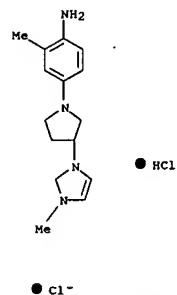
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

ABSTRACT:

The invention is related to the preparation of p-phenylenediamines I via cyclocondensation of p-substituted anilines II with 1,4-disubstituted-2-butanols of formula Y-(CH₂)₂-CH(OH)-CH₂-Y [the carbon connecting R₂ to pyrrolidine ring is a/chiral: n = 0-4; when n ≥ 2, R₁ = identical or different; R₁ = halo, linear or branched aliphatic hydrocarbyl, aryl, etc.; R₂ cannot be a peroxide bond, N₃⁺, NO₂, or NO; R₂ = (non)cationic N radical]. The advantages include elimination of 3-pyrrolidinol as starting material, use of cheap materials, and a viable industrial scale-up. Thus, cyclocondensation of 4-aminoacetanilide with 1,4-dibromo-2-butanol gave pyrrolidinol III in 72.7% yield. Activation of III with MeSO₂Cl, substitution with TMA in EtOH, and HCl-catalyzed deacetylation gave IV=Cl⁻=HCl.

IT 607354-86-9P, 3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium Chloride hydrochloride 607354-98-3P, 1-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-3-methyl-1H-imidazol-3-ium chloride monohydrochloride 852615-57-7P, [1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride monohydrochloride 852615-62-4P, [1-(4-Aminophenyl)pyrrolidin-3-yl]pyridinium chloride monohydrochloride 852615-63-5P, [1-(4-Aminophenyl)pyrrolidin-3-yl](methyl)piperidinium chloride

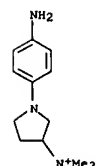
L4 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 852615-57-7 CAPLUS

CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, chloride, monohydrochloride (9CI) (CA INDEX NAME)

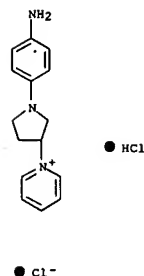
● Cl⁻

● HCl

RN 852615-62-4 CAPLUS

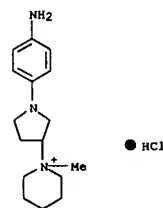
CN Pyridinium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-, chloride, monohydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

RN 852615-63-5 CAPLUS

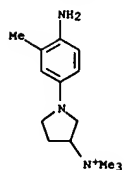
CN Piperidinium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-1-methyl-, chloride, monohydrochloride (9CI) (CA INDEX NAME)

● Cl⁻

RN 852615-65-7 CAPLUS

CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N,N-trimethyl-, chloride, dihydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

● 2 HCl

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L4 ANSWER 3 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:467803 CAPLUS
 DOCUMENT NUMBER: 143:7490
 TITLE: Process for the preparation of optically active 1-(4-nitrophenyl)-3-pyrrolidinol derivatives without isolating (R)-3-pyrrolidinols intermediates, and para-phenylenediamines comprising chiral pyrrolidinyl groups for use in dyeing compositions for keratinous fibers
 INVENTOR(S): Bordier, Thierry; Xu, Jinzhu
 PATENT ASSIGNEE(S): L'oreal, Fr.
 SOURCE: Eur. Pat. Appl., 35 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1333904	A2	20050601	EP 2004-106111	20041126
EP 1535904	A3	20050713		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU				
FR 2862970	A1	20050603	FR 2003-50940	20031128
US 2005209464	A1	20050922	US 2004-995559	20041124
PRIORITY APPLN. INFO.:			FR 2003-50940	A 20031128
			US 2003-531966P	P 20031224

OTHER SOURCE(S): MARPAT 143:7490
 GRAPHIC IMAGE:

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

ABSTRACT:
 The invention is related to the preparation of optically active 1-(4-nitrophenyl)-3-pyrrolidinol derivs. (I) without isolating (R)-3-pyrrolidinols intermediates by decarboxylation of trans-4-hydroxy-L-proline (II), amination of 4-halonitrobenzene III with II, followed by optionally inversion of configuration [n = 0-4; when n ≥ 2, R1 = identical or different; r1 = H, linear or branched aliphatic hydrocarbyl, aryl, etc.; R2 = (non)cationic nitrogen radical]. The invention is also related to the preparation of chiral amines IV and their use as oxidation bases in dyeing compns. for keratinous fibers and dyeing kit containing said compns. (no data). The advantages include reduced number of steps, high global yield, and simple process. For example, decarboxylation of II in NMP at 155 for 3 h and amination of 4-fluoronitrobenzene with

L4 ANSWER 3 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

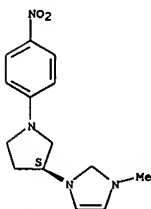
(R)-3-pyrrolidinol generated in-situ gave I (R1 = H). V=Cl-HCl was prepd. in 3 steps by activation of I (R1 = H) with MeSO2Cl, substitution with N-methylimidazole, and hydrogenation over Pd/C.

IT 852619-40-09
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (Intermediate; preparation of optically active 1-(4-nitrophenyl)-3-pyrrolidinols without isolating (R)-3-pyrrolidinols intermediates, and para-phenylenediamines comprising chiral pyrrolidinyl groups for use in dyeing compns. for keratinous fibers)
 RN 852619-40-0 CAPLUS
 CN 1H-Imidazolium, 1-methyl-3-[(3S)-1-(4-nitrophenyl)-3-pyrrolidinyl]-, methanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 852619-39-7
 CMF C14 H17 N4 O2

Absolute stereochemistry.



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 16053-58-0
 CMF C H3 O3 S

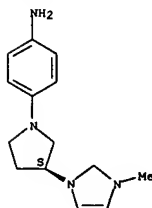


IT 852619-37-5P
 RL: COS (Cosmetic use); IMF (Industrial manufacture); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of optically active 1-(4-nitrophenyl)-3-pyrrolidinols without

L4 ANSWER 3 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

isolating (R)-3-pyrrolidinols intermediates, and para-phenylenediamines comprising chiral pyrrolidinyl groups for use in dyeing compns. for keratinous fibers)
 RN 852619-37-5 CAPLUS
 CN 1H-Imidazolium, 1-[(3S)-1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

● Cl⁻

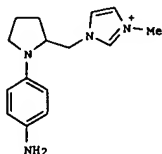
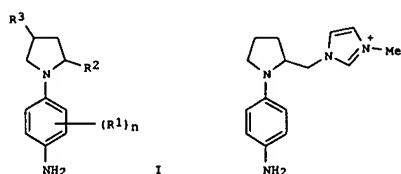
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

APPLICANT

L4 ANSWER 4 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:796305 CAPLUS
 DOCUMENT NUMBER: 141:295851
 TITLE: Preparation of p-phenylenediamines with a disubstituted pyrrolidine group, bearing a cationic radical and their use for dyeing keratinic fibers
 INVENTOR(S): Ramos, Laure; Sabelle, Stephane
 PATENT ASSIGNEE(S): L'oreal, Fr.
 SOURCE: Eur. Pat. Appl., 32 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1462453	A1	20040929	EP 2004-290635	20040309
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,				
FR 2852953	A1	20041001	FR 2003-3873	20030328
JP 2004300155	A2	20041028	JP 2004-93404	20040326
US 2004248961	A1	20041209	US 2004-810814	20040329
PRIORITY APPLN. INFO.:				
			FR 2003-3873	A 20030328
			US 2003-469013P	P 20030509

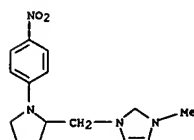
OTHER SOURCE(S): MARPAT 141:295851
 GRAPHIC IMAGE:



ABSTRACT:
 Title compds. I {wherein n = 0-4; when n ≥ 2, R1 can be identical or different; R1 = halo, Z, (un)saturated (un)substituted aliphatic or alicyclic hydrocarbyl, optionally containing one or more O, Si, S, or SO2; R1 is not -O-O-, diazo, nitro or nitroso; R2 = Z, CO2H and derivs., monoalkyl/dialkyl/carbamoyl, etc.; R3 = Z, H, OH and derivs., NH2 and derivs., SH, CO2H and derivs.,

L4 ANSWER 4 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 monoalkyl/dialkylcarbamoyl, alkylsulfonyle, alkyl, etc.; provided that at least one of R2 and R3 is an onium radical; Z = onium radical selected from trialkylammonium, pyridinium, 1H-imidazol-3-ium; 3H-imidazol-1-ium, etc.; and their addn. salts) were prepd. as oxidn. bases for dyeing keratinous fibers, in particular human hair fibers. For example, II=Cl=HCl was prepd., in 3 steps, via substitution of 2-chloromethyl-1-(4-nitrophenyl)pyrrolidine (prepn. given) in N-methylimidazole in toluene at reflux for 9 h, and hydrogenation of the nitro deriv. over Pd/C. Formulations of II=Cl=HCl in acidic medium gave blue-violet and gray shades.

IT 764662-21-7P, 1-Methyl-3-[1-(4-nitrophenyl)pyrrolidin-2-ylmethyl]-3H-imidazol-1-ium chloride 764662-27-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of p-phenylenediamines with a disubstituted pyrrolidine group, bearing a cationic radical and their use for dyeing keratinic fibers)
 RN 764662-21-7 CAPLUS
 CN 1H-Imidazolium, 3-methyl-1-[[1-(4-nitrophenyl)-2-pyrrolidinyl]methyl]-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 764662-27-3 CAPLUS
 CN 1H-Imidazolium, 1-[(3S,5S)-5-[(3-methyl-1H-imidazolium-1-yl)methyl]-1-(4-nitrophenyl)-3-pyrrolidinyl]-3-methyl-, dimethanesulfonate (9CI) (CA INDEX NAME)

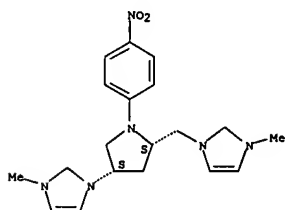
CH 1

CRN 764662-26-2

CMF C19 H24 N6 O2

Absolute stereochemistry.

L4 ANSWER 4 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CH 2

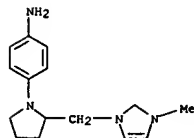
CRN 16053-58-0

CMF C H3 O3 S



IT 764662-19-3P, 3-[1-(4-Aminophenyl)pyrrolidin-2-ylmethyl]-1-methyl-3H-imidazol-1-ium chloride hydrochloride
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (oxidation base for dyeing; preparation of p-phenylenediamines with a disubstituted pyrrolidine group, bearing a cationic radical and their use for dyeing keratinic fibers)
 RN 764662-19-3 CAPLUS
 CN 1H-Imidazolium, 1-[[1-(4-aminophenyl)-2-pyrrolidinyl]methyl]-3-methyl-, chloride, monohydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 4 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● Cl⁻

● HCl

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

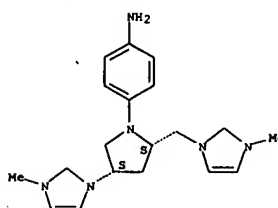
IT 764662-23-9P
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (oxidation base in dyeing; preparation of p-phenylenediamines with a disubstituted pyrrolidine group, bearing a cationic radical and their use for dyeing keratinic fibers)
 RN 764662-23-9 CAPLUS
 CN 1H-Imidazolium, 1-[(3S,5S)-1-(4-aminophenyl)-5-[(3-methyl-1H-imidazolium-1-yl)methyl]-3-pyrrolidinyl]-3-methyl-, dimethanesulfonate (9CI) (CA INDEX NAME)

CH 1

CRN 764662-22-8

CMF C19 H26 N6

Absolute stereochemistry.



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L4 ANSWER 4 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CM 2

CRN 16053-58-0
CMF C H3 O3 8

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:482172 CAPLUS
DOCUMENT NUMBER: 141:42544
TITLE: Hair dyeing compositions comprising a tertiary p-phenylenediamine with a pyrrolidine ring and a vitamin derivative
INVENTOR(S): Cotteret, Jean; Lagrange, Alain
PATENT ASSIGNEE(S): L'oreal, Fr.
SOURCE: Eur. Pat. Appl., 52 pp.
CODEN: EPXIXW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1428517	A1	20040616	EP 2003-293142	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
FR 2848431	A1	20040618	FR 2002-15764	20021213
US 2004205904	A1	20041021	US 2003-735291	20031212
PRIORITY APPLN. INFO.:			FR 2002-15764	A 20021213
			US 2003-444634P	P 20030204

OTHER SOURCE(S): MARPAT 141:42544

ABSTRACT:
Hair dyeing compns. comprise a tertiary p-phenylenediamine with a pyrrolidine ring and a vitamin derivative. Thus, a composition contained oleyl alc. 6, oleic acid 3, diglyceryl oleyl ether 6, hexaglyceryl oleyl ether 6, diethylaminopropyl laurylammonosuccinamate sodium salt 3, ethoxylated oleylamine 7, ethoxylated alkyl ether monoethanolamide 10, ammonium acetate 20, propylene glycol 20, dilinoleic acid 1.5, reducing agents 0.915, sequestrants 1, resorcinol 0.085, [1-(4-aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride 1.0, 2-methyl-5-aminophenol 0.5, niacinamide 0.2, perfume qs, ammonia 10.2, and water qs to 100 g. The above composition was mixed with 6% H2O2 and applied onto hair.

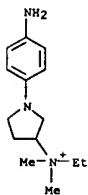
IT 435275-61-9 435275-62-0 435275-65-3
435275-66-4 435275-67-5 435275-68-6
435275-69-7 435275-70-0 435275-72-2
435275-73-3 435275-74-4 435275-82-4
607355-12-4 607355-13-5 607355-16-8
607355-17-9 607355-18-0 607355-19-1
607355-20-4 607355-21-5 701975-01-1
701975-08-8 701975-09-9 701975-10-2
701975-11-3 701975-12-4 701975-13-5
701975-14-6 701975-15-7 701975-16-8
701975-17-9 701975-20-4 701975-21-5
701975-22-6 701975-23-7 701975-24-8
701975-25-9 701975-26-0 701975-27-1
701975-28-2 701975-29-3 701975-30-6
701975-31-7 701975-32-8 701975-33-9
701975-34-0 701975-35-1

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

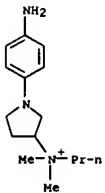
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dyeing compns. comprising phenylenediamine with pyrrolidine ring and vitamin deriv.)

RN 435275-61-9 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide (9CI)

(CA INDEX NAME)

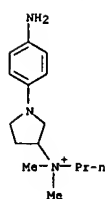
● I⁻

RN 435275-62-0 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, iodide (9CI) (CA INDEX NAME)

● I⁻

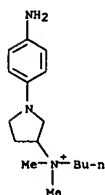
RN 435275-65-3 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Br⁻

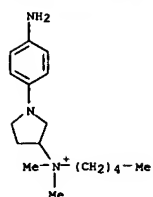
RN 435275-66-4 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-butyl-N,N-dimethyl-, iodide (9CI)

(CA INDEX NAME)

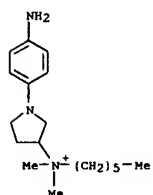
● I⁻

RN 435275-67-5 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-pentyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

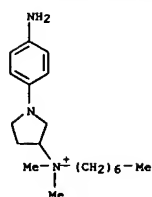
● I⁻

RN 435275-68-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

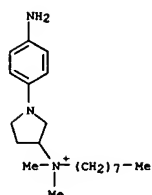
● I⁻

RN 435275-69-7 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

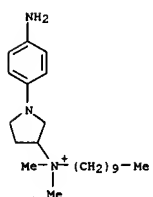
● I⁻

RN 435275-70-0 CAPLUS
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 (CA INDEX NAME)

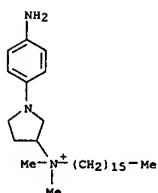
● I⁻

RN 435275-72-2 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

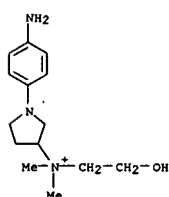
● I⁻

RN 435275-73-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

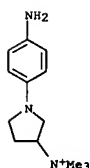
● I⁻

RN 435275-74-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

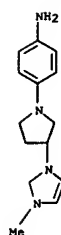
● I⁻

RN 435275-82-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, chloride (9CI)
 (CA INDEX NAME)

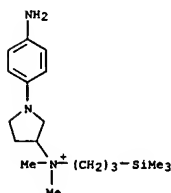
● Cl⁻

RN 607355-12-4 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

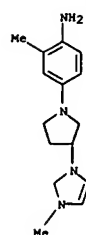
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-13-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

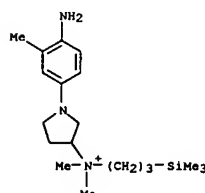
● Cl⁻

RN 607355-16-8 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

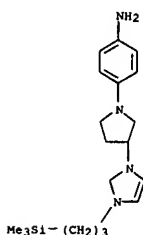
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

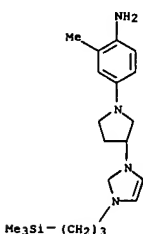
● Cl⁻

RN 607355-18-0 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

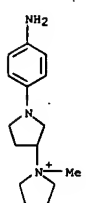
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-19-1 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

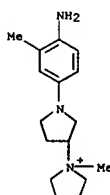
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-20-4 CAPLUS
 CN 1,3'-Bipyrrolidininium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

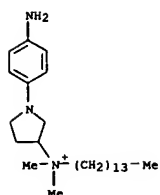
● Cl⁻

RN 607355-21-5 CAPLUS
 CN 1,3'-Bipyrrolidininium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

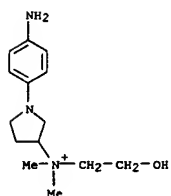
● Cl⁻

RN 701975-01-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-tetradecyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

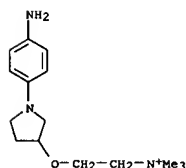
● Br⁻

RN 701975-08-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

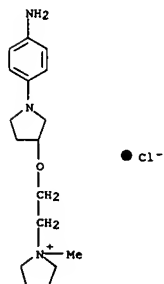
● Cl⁻

RN 701975-09-9 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-aminophenyl)-3-pyrrolidinyl]-N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

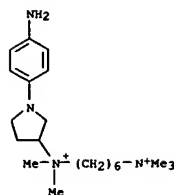
● Cl⁻

RN 701975-12-4 CAPLUS
 CN Pyrrolidininium, 1-[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

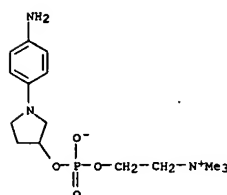
● Cl⁻

RN 701975-13-5 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

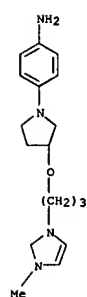
● 2 Cl⁻

RN 701975-10-2 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

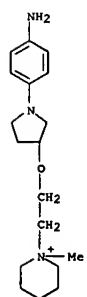


RN 701975-11-3 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

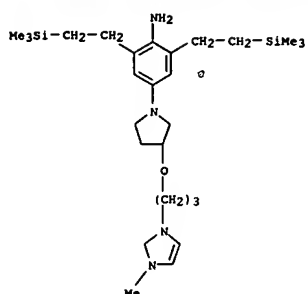
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-14-6 CAPLUS
 CN Piperidinium, 1-[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

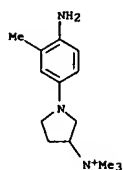
● Cl⁻

RN 701975-15-7 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-[4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl]-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

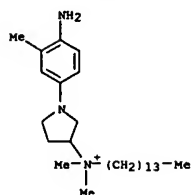


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-16-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

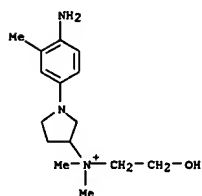


RN 701975-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-tetradecyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

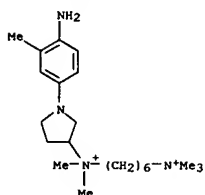


RN 701975-20-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

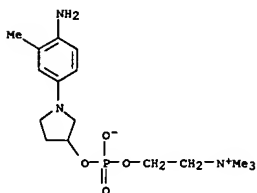


RN 701975-21-5 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

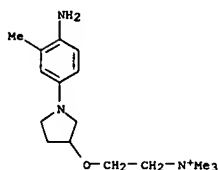


RN 701975-22-6 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyloxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

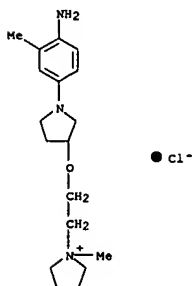


RN 701975-23-7 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

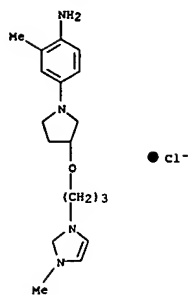


RN 701975-24-8 CAPLUS
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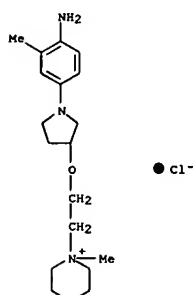


RN 701975-25-9 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

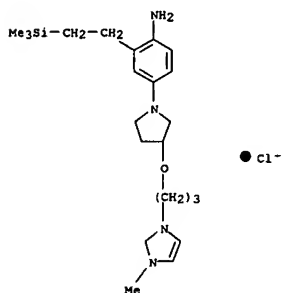


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-26-0 CAPLUS
 CN Piperidinium, 1-2-[[1-[[4-amino-3-methylphenyl]-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

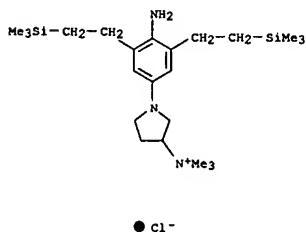


RN 701975-27-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[[4-amino-3-[[2-(trimethylsilyl)ethyl]phenyl]-N,N,N-trimethyl-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

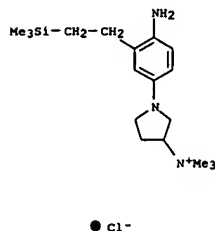


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-30-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[[4-amino-3,5-bis[[2-(trimethylsilyl)ethyl]phenyl]-N,N,N-trimethyl-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

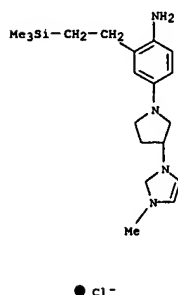


RN 701975-31-7 CAPLUS
 CN 1H-Imidazolium, 1-[1-[[4-amino-3,5-bis[[2-(trimethylsilyl)ethyl]phenyl]-3-pyrrolidinyl]oxy]ethyl]phenyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

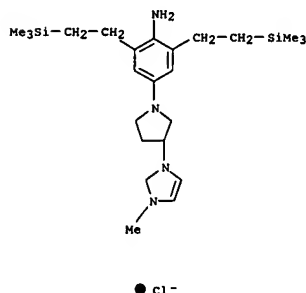


RN 701975-28-2 CAPLUS
 CN 1H-Imidazolium, 1-[1-[[4-amino-3-[[2-(trimethylsilyl)ethyl]phenyl]-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

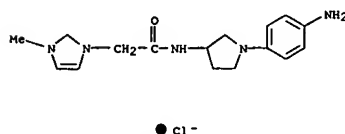


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-29-3 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-[[4-amino-3-[[2-(trimethylsilyl)ethyl]phenyl]-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

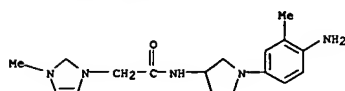


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-32-8 CAPLUS
 CN 1H-Imidazolium, 1-[2-[[1-[[4-aminophenyl]-3-pyrrolidinyl]amino]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

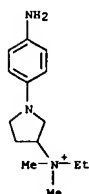


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-33-9 CAPLUS
 CN 1H-Imidazolium, 1-[2-[[1-[[4-amino-3-methylphenyl]-3-pyrrolidinyl]amino]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-34-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, chloride
 (9CI) (CA INDEX NAME)

● Cl⁻

RN 701975-35-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, methyl
 sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 435275-63-1
 CMF C15 H26 N3

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:482171 CAPLUS
 DOCUMENT NUMBER: 141:42543
 TITLE: Hair dyeing compositions comprising a tertiary
 p-phenylenediamine with a pyrrolidine ring and a
 polyol ester
 INVENTOR(S): Cotteret, Jean; Lagrange, Alain
 PATENT ASSIGNEE(S): L'oreal, Fr.
 SOURCE: Eur. Pat. Appl., 49 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1428516	A1	20040616	EP 2003-293141	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
FR 2848443	A1	20040618	FR 2002-15776	20021213
US 2004211010	A1	20041028	US 2003-734612	20031212
PRIORITY APPLN. INFO.:			FR 2002-15776	A 20021213
			US 2003-444625P	P 20030204

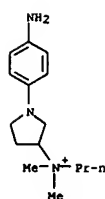
OTHER SOURCE(S): MARPAT 141:42543

ABSTRACT:
 Hair dyeing compns. comprising a tertiary p-phenylenediamine with a pyrrolidine ring and a polyol ester. Thus, a composition contained oleyl alc. 4, oleic acid 5, diglyceryl oleyl ether 4, tetraglyceryl oleyl ether 3.6, ethoxylated amino acid 8, ethoxylated oleylamine 4, ethoxylated decyl ether 2.7, PEG oleate 2.5,, adipic acid 1.3, reducing agents 0.63, sequestrants 1, resorcinol 0.085, [1-(4-aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride 0.8, 5-N(8-hydroxyethyl)amino-2-methylphenol 0.4, perfume qs, ammonia 10, and water qs to 100 g. The above composition was mixed with 6% H2O2 and applied onto hair.

IT 435275-61-9 435275-62-0 435275-65-3
 435275-66-4 435275-67-5 435275-68-6
 435275-69-7 435275-70-0 435275-72-2
 435275-73-3 435275-74-4 435275-82-4
 607355-12-4 607355-13-5 607355-16-8
 607355-17-9 607355-18-0 607355-19-1
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 701975-08-8 701975-09-9 701975-10-2
 701975-11-3 701975-12-4 701975-13-5
 701975-14-6 701975-15-7 701975-16-8
 701975-17-9 701975-20-4 701975-21-5
 701975-22-6 701975-23-7 701975-24-8
 701975-25-9 701975-26-0 701975-27-1
 701975-28-2 701975-29-3 701975-30-6
 701975-31-7 701975-32-8 701975-33-9
 701975-34-0 701975-35-1

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. comprising cationic phenylenediamine with pyrrolidine ring and polyol ester)

L4 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

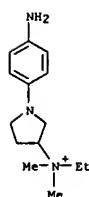
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Me-O-SO₃⁻

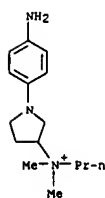
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 RECORD. ALL CITATIONS AVAILABLE IN THE RE
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L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 435275-61-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide
 (9CI) (CA INDEX NAME)

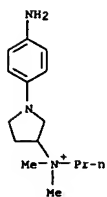
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RN 435275-62-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, iodide
 (9CI) (CA INDEX NAME)

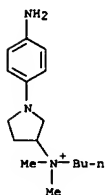
● I⁻

RN 435275-65-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide
 (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

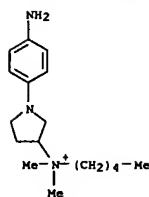
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RN 435275-66-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-butyl-N,N-dimethyl-, iodide
 (9CI) (CA INDEX NAME)

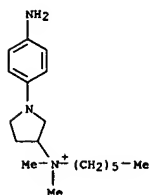
● I⁻

RN 435275-67-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-pentyl-, iodide
 (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

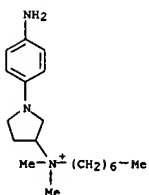
● I⁻

RN 435275-68-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-hexyl-N,N-dimethyl-, iodide
 (9CI) (CA INDEX NAME)

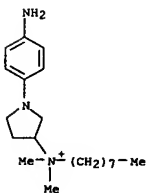
● I⁻

RN 435275-69-7 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-heptyl-N,N-dimethyl-, iodide
 (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

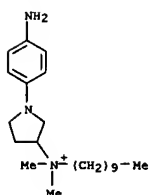
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RN 435275-70-0 CAPLUS
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 (9CI) (CA INDEX NAME)

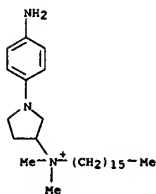
● I⁻

RN 435275-72-2 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-decyl-N,N-dimethyl-, iodide
 (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

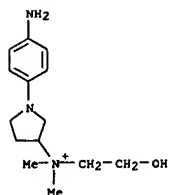
● I⁻

RN 435275-73-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-hexadecyl-N,N-dimethyl-, iodide
 (9CI) (CA INDEX NAME)

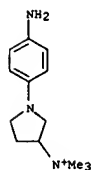
● I⁻

RN 435275-74-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-,
 iodide (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

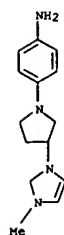
● I⁻

RN 435275-82-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, chloride (9CI)
 (CA INDEX NAME)

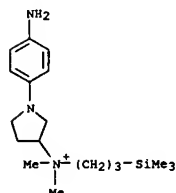
● Cl⁻

RN 607355-12-4 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride
 (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

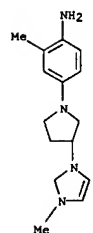
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-13-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

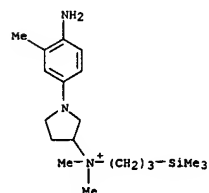
● Cl⁻

RN 607355-16-8 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-,
 chloride (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

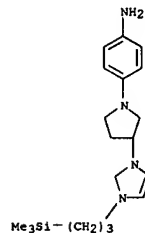
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

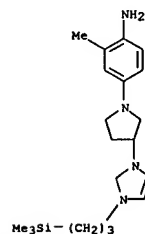
● Cl⁻

RN 607355-18-0 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

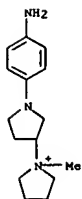
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-19-1 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

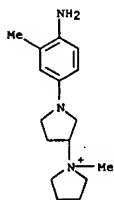
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-20-4 CAPLUS
 CN 1,3'-Bipyrrolidininium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

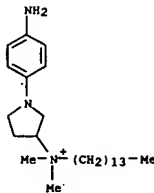
● Cl⁻

RN 607355-21-5 CAPLUS
 CN 1,3'-Bipyrrolidinium, 1'-(4-amino-3-methylphenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

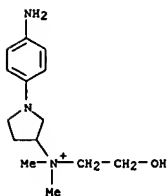
● Cl⁻

RN 701975-01-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-tetradecyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

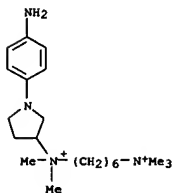
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RN 701975-08-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

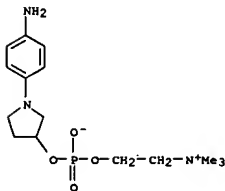
● Cl⁻

RN 701975-09-9 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-aminophenyl)-3-pyrrolidinyl]-N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

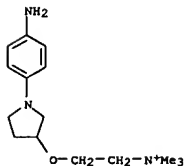
● 2 Cl⁻

RN 701975-10-2 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

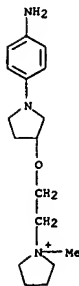


RN 701975-11-3 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

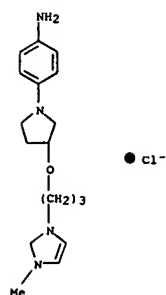
● Cl⁻

RN 701975-12-4 CAPLUS
 CN Pyrrolidinium, 1-[2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

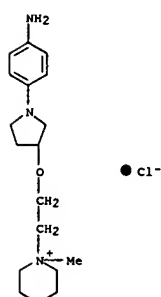
● Cl⁻

RN 701975-13-5 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

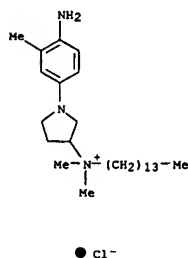


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-14-6 CAPLUS
 CN Piperidinium,
 1-(2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl)-1-methyl-
 , chloride (9CI) (CA INDEX NAME)

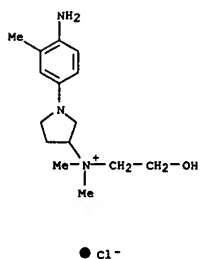


RN 701975-15-7 CAPLUS
 CN 1H-Imidazolium,
 1-(3-[[1-(4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl]-

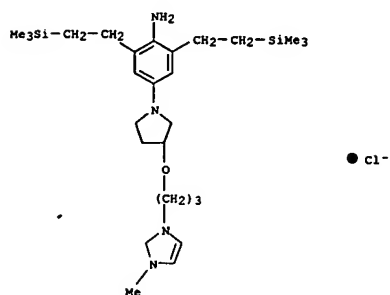
L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



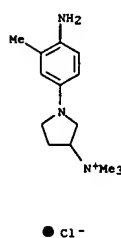
RN 701975-20-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N-(2-hydroxyethyl)-N,N-
 dimethyl-, chloride (9CI) (CA INDEX NAME)



RN 701975-21-5 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-
 N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

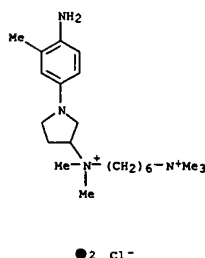
L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-16-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N,N-trimethyl-,
 chloride (9CI) (CA INDEX NAME)

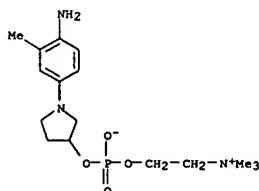


RN 701975-17-9 CAPLUS
 CN 3-Pyrrolidinaminium,
 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-tetradecyl-,
 chloride (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

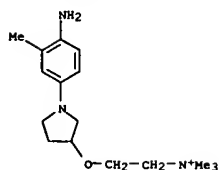


RN 701975-22-6 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-
 pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt
 (9CI) (CA INDEX NAME)

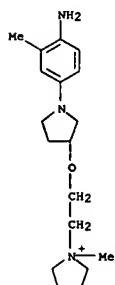


RN 701975-23-7 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]-N,N,N-
 trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

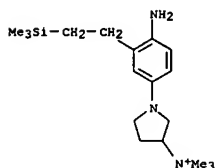
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RN 701975-24-8 CAPLUS
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 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-
 1-methyl-, chloride (9CI) (CA INDEX NAME)

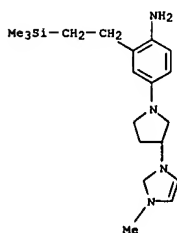
● Cl⁻

RN 701975-25-9 CAPLUS
 CN 1H-imidazolium, 1-[3-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

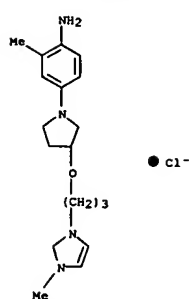
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RN 701975-28-2 CAPLUS
 CN 1H-imidazolium, 1-[1-[4-amino-3-[2-(trimethylsilyl)ethyl]phenyl]-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

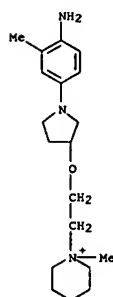
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-29-3 CAPLUS
 CN 1H-imidazolium, 1-[3-[[1-(4-amino-3-[2-(trimethylsilyl)ethyl]phenyl]-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

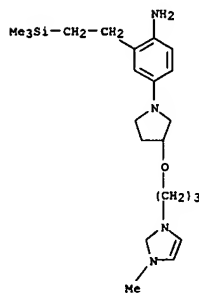
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-26-0 CAPLUS
 CN Piperidinium,
 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-
 1-methyl-, chloride (9CI) (CA INDEX NAME)

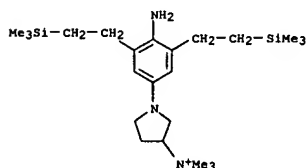
● Cl⁻

RN 701975-27-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[4-amino-3-[2-(trimethylsilyl)ethyl]phenyl]-N,N,N-

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

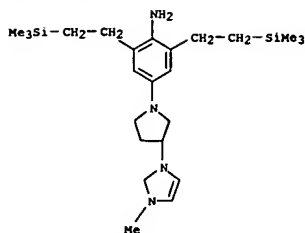
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-30-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl]-
 N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

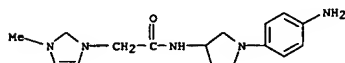
● Cl⁻

RN 701975-31-7 CAPLUS
 CN 1H-imidazolium, 1-[1-[4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl]-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

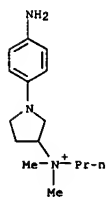
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-32-8 CAPLUS
 CN 1H-imidazolium,
 1-([1-(4-aminophenyl)-3-pyrrolidinyl]amino)-2-oxoethyl-
 3-methyl-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-33-9 CAPLUS
 CN 1H-imidazolium,
 1-([1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]amino)-2-
 oxoethyl-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



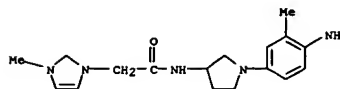
CM 2

CRN 21228-90-0
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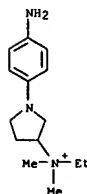
Me-O-SO₃⁻

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L4 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-34-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, chloride
 (9CI) (CA INDEX NAME)

● Cl⁻

RN 701975-35-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, methyl
 sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 435275-63-1
 CMF C15 H26 N3

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:482170 CAPLUS
 DOCUMENT NUMBER: 141:42542
 TITLE: Hair dyeing compositions comprising a tertiary
 cationic p-phenylenediamine with a pyrrolidine ring
 and a surfactant
 INVENTOR(S): Cotteret, Jean; Lagrange, Alain
 PATENT ASSIGNEE(S): L'oreal, Fr.
 SOURCE: Eur. Pat. Appl., 53 pp.
 CODEN: EPXKDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

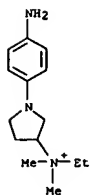
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1428515	A1	20040616	EP 2003-293140	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
FR 2848437	A1	20040618	FR 2002-15770	20021213
US 2004216243	A1	20041104	US 2003-735262	20031212
PRIORITY APPLN. INFO.:			FR 2002-15770	A 20021213
			US 2003-444654P	P 20030204

OTHER SOURCE(S): MARPAT 141:42542

ABSTRACT:
 Hair dyeing compns. comprise a tertiary cationic p-phenylenediamine with a pyrrolidine ring and a surfactant such as a glyceryl ether. Thus, a composition contained oleyl alc. 6, oleic acid 3, diglyceryl oleyl ether 6, hexaglyceryl oleyl ether 6, diethylaminopropyl laurylammonosuccinamate sodium salt 3, ethoxylated oleylamine 7, ethoxylated alkyl ether monoethanolamide 10, ammonium acetate 20, hexylene glycol 20, reducing agents 0.915, sequestrants 1, resorcinol 0.085, [1-(4-aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride 1.0, 2-methyl-5-aminophenol 0.5, perfume qs, ammonia 10.2, and water qs to 100 g. The above composition was mixed with 6% H2O2 and applied onto hair.

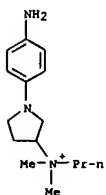
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 607355-17-9 607355-18-0 607355-19-1
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 701975-25-9 701975-26-0 701975-27-1
 701975-28-2 701975-29-3 701975-30-6
 701975-31-7 701975-32-8 701975-33-9
 701975-34-0 701975-35-1
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. comprising cationic phenylenediamine with
 pyrrolidine ring and surfactant)
 RN 435275-61-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide
 (9CI)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
(CA INDEX NAME)



● I⁻

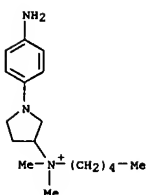
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CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, iodide
(9CI) (CA INDEX NAME)



● I⁻

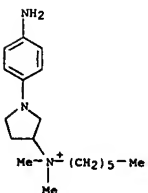
RN 435275-65-3 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide
(9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● I⁻

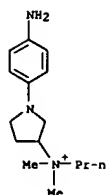
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(9CI) (CA INDEX NAME)



● I⁻

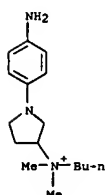
RN 435275-69-7 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-heptyl-, iodide
(9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● Br⁻

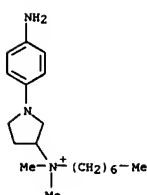
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CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-butyl-N,N-dimethyl-, iodide
(9CI) (CA INDEX NAME)



● I⁻

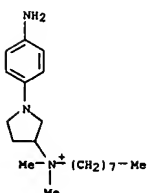
RN 435275-67-5 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-pentyl-, iodide
(9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● I⁻

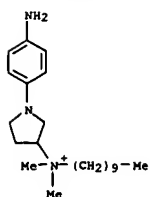
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(9CI) (CA INDEX NAME)



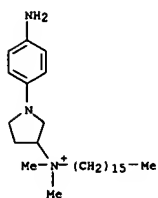
● I⁻

RN 435275-72-2 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-decyl-N,N-dimethyl-, iodide
(9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

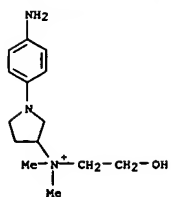
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RN 435275-73-3 CAPLUS
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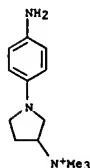
● I⁻

RN 435275-74-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

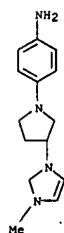
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RN 435275-82-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

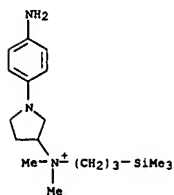
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RN 607355-12-4 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

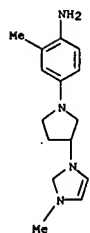
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-13-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

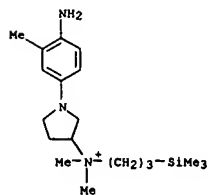
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RN 607355-16-8 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

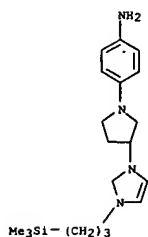
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

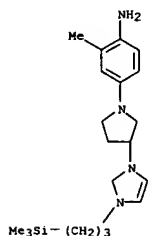
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RN 607355-18-0 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

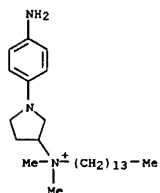
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-19-1 CAPLUS
 CN 1H-imidazolium, 1-([1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

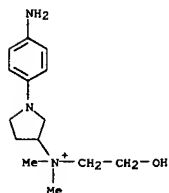
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-20-4 CAPLUS
 CN 1,3'-Bipyrrolidinium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

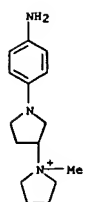
● Br⁻

RN 701975-08-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

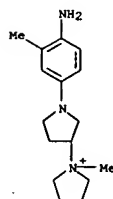
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RN 701975-09-9 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-aminophenyl)-3-pyrrolidinyl]-N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

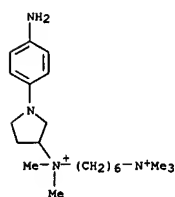
● Cl⁻

RN 607355-21-5 CAPLUS
 CN 1,3'-Bipyrrolidinium, 1'-(4-amino-3-methylphenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

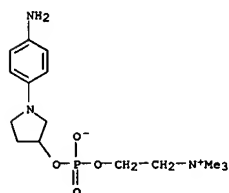
● Cl⁻

RN 701975-01-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-tetradecyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

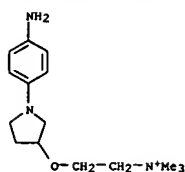
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RN 701975-10-2 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

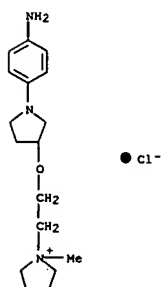


RN 701975-11-3 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

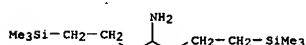
● Cl⁻

RN 701975-12-4 CAPLUS
 CN Pyrrolidinium,
 1-[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-
 , chloride (9CI) (CA INDEX NAME)

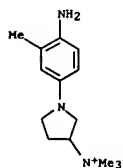
● Cl⁻

RN 701975-13-5 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]propyl]-3-
 methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

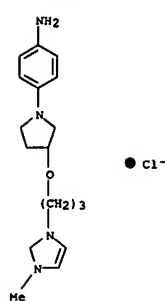
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-16-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N,N-trimethyl-,
 chloride (9CI) (CA INDEX NAME)

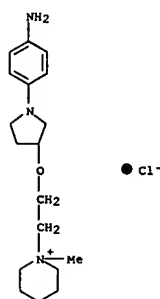
● Cl⁻

RN 701975-17-9 CAPLUS
 CN 3-Pyrrolidinaminium,
 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-tetradecyl-
 , chloride (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

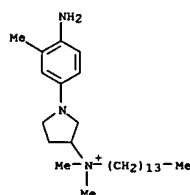
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-14-6 CAPLUS
 CN Piperidinium,
 1-[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-
 , chloride (9CI) (CA INDEX NAME)

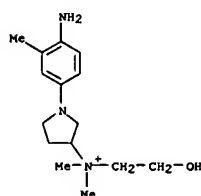
● Cl⁻

RN 701975-15-7 CAPLUS
 CN 1H-Imidazolium,
 1-[3-[[1-(4-amino-3-bis[2-(trimethylsilyl)ethyl]phenyl)-3-pyrrolidinyl]oxy]propyl]-3-
 methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

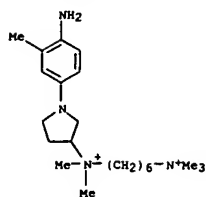
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RN 701975-20-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N-(2-hydroxyethyl)-N,N-
 dimethyl-, chloride (9CI) (CA INDEX NAME)

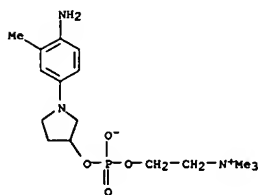
● Cl⁻

RN 701975-21-5 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-
 N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

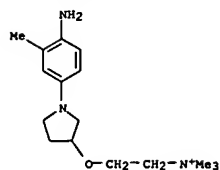
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RN 701975-22-6 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI)
 (CA INDEX NAME)

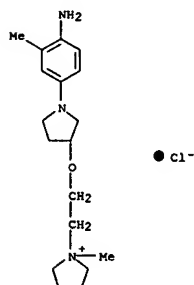


RN 701975-23-7 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

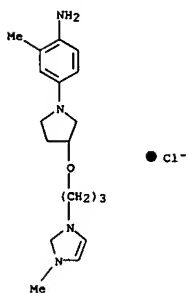
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RN 701975-24-8 CAPLUS
 CN Pyrrolidinium, 1-[2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

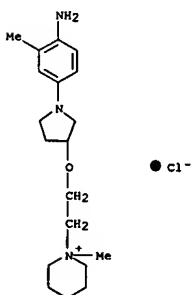


RN 701975-25-9 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

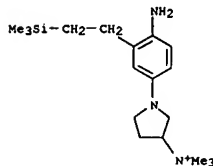
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-26-0 CAPLUS
 CN Piperidinium, 1-[2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

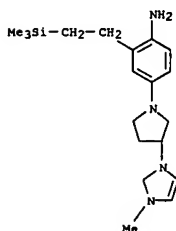
● Cl⁻

RN 701975-27-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[4-amino-3-[2-(trimethylsilyl)ethyl]phenyl]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

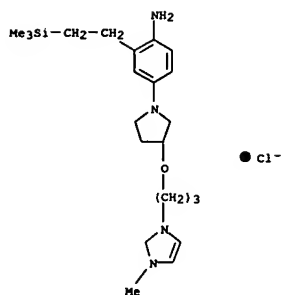
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RN 701975-28-2 CAPLUS
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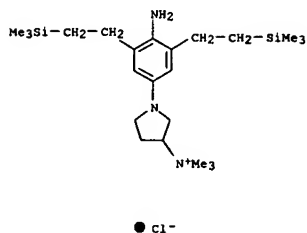
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-29-3 CAPLUS
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L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

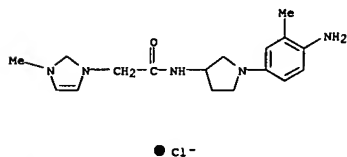


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-30-6 CAPLUS
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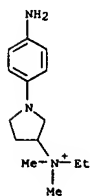


RN 701975-31-7 CAPLUS
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L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-34-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

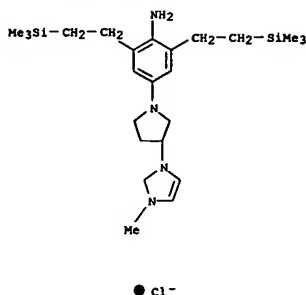


RN 701975-35-1 CAPLUS
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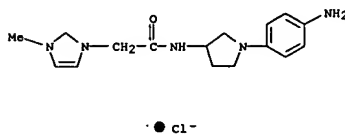
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CRN 435275-63-1
 CMF C15 H26 N3

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

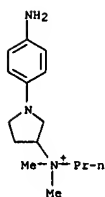


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-32-8 CAPLUS
 CN 1H-Imidazolium, 1-[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]amino]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-33-9 CAPLUS
 CN 1H-Imidazolium, 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]amino]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

CRN 21228-90-0
 CMF C H3 O4 S

Me⁻ O⁻ SO₃⁻

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

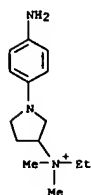
L4 ANSWER 8 OF 28 CAPIUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:482169 CAPIUS
 DOCUMENT NUMBER: 141:42541
 TITLE: Hair dyeing compositions comprising a tertiary p-phenylenediamine with a pyrrolidine ring and a benzomorpholine coupler
 INVENTOR(S): Cottard, Francois; Rondeau, Christine
 PATENT ASSIGNEE(S): L'oreal, Fr.
 SOURCE: Eur. Pat. Appl., 53 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1428514	A1	20040616	EP 2003-293139	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
FR 2848441	A1	20040618	FR 2002-15774	20021213
FR 2848441	B1	20050304		
US 2004205903	A1	20041021	US 2003-735288	20031212
PRIORITY APPLN. INFO.:			FR 2002-15774	A 20021213
			US 2003-450331P	P 20030228

ABSTRACT:
 Hair dyeing compns. comprise a tertiary p-phenylenediamine with a pyrrolidine ring and a benzomorpholine coupler. Thus, a composition contained oleyl alc. 6, oleic acid 3, polyglyceryl oleyl ether 12, diethylaminopropyl laurylamino succinate sodium salt 3, ethoxylated oleylamine 7, ethoxylated alkyl ether monoethanolamide 10, ammonium acetate 20, propylene glycol 20, reducing agents 0.915, sequestrants 1, p-aminophenol 0.2, [1-(4-aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride 0.3, N,N-(2-Hydroxyethyl)-p-phenylenediamine sulfate 0.3, 6-hydroxybenzomorpholine 0.45, perfume qs, ammonia 10.2, and water qs to 100 g.

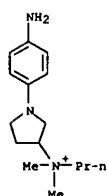
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 607355-12-4 607355-13-5 607355-16-8
 607355-17-9 607355-18-0 607355-19-1
 607355-20-4 607355-21-5 701975-01-1
 701975-08-8 701975-09-9 701975-10-2
 701975-11-3 701975-12-4 701975-13-5
 701975-14-6 701975-15-7 701975-16-8
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 701975-22-6 701975-23-7 701975-24-8
 701975-25-9 701975-26-0 701975-27-1
 701975-28-2 701975-29-3 701975-30-6
 701975-31-7 701975-32-8 701975-33-9
 701975-34-9 701975-35-1
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. comprising cationic phenylenediamine with

L4 ANSWER 8 OF 28 CAPIUS COPYRIGHT 2005 ACS on STN (Continued)
 pyrrolidine ring and benzomorpholine coupler)
 RN 435275-61-9 CAPIUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)



• I⁻

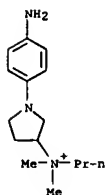
RN 435275-62-0 CAPIUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, iodide (9CI) (CA INDEX NAME)



• I⁻

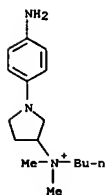
RN 435275-65-3 CAPIUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPIUS COPYRIGHT 2005 ACS on STN (Continued)



• Br⁻

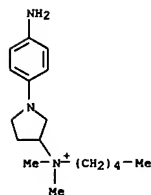
RN 435275-66-4 CAPIUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-butyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)



• I⁻

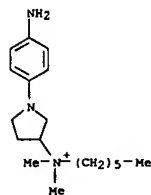
RN 435275-67-5 CAPIUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-pentyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPIUS COPYRIGHT 2005 ACS on STN (Continued)



• I⁻

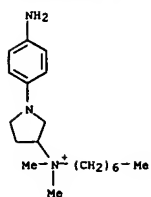
RN 435275-68-6 CAPIUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-hexyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)



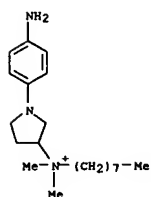
• I⁻

RN 435275-69-7 CAPIUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-heptyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

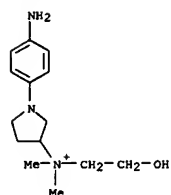
● I⁻

RN 435275-70-0 CAPLUS
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 (CA INDEX NAME)

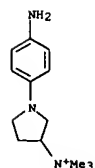
● I⁻

RN 435275-72-2 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-decyl-, iodide (9CI)
 (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

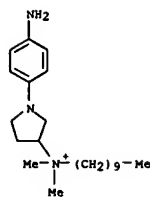
● I⁻

RN 435275-82-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, chloride (9CI)
 (CA INDEX NAME)

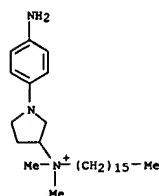
● Cl⁻

RN 607355-12-4 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI)
 (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

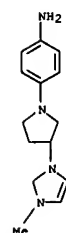
● I⁻

RN 435275-73-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-hexadecyl-, iodide (9CI)
 (CA INDEX NAME)

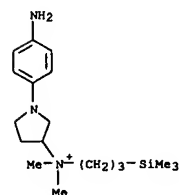
● I⁻

RN 435275-74-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-(2-hydroxyethyl)-, iodide (9CI)
 (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

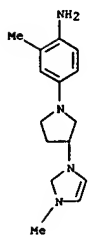
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-13-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI)
 (CA INDEX NAME)

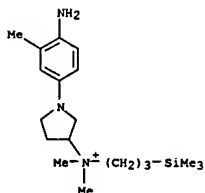
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RN 607355-16-8 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI)
 (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

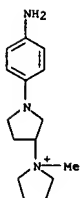
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[(4-amino-3-methylphenyl)-N,N-dimethyl-N-(3-(trimethylsilyl)propyl)]-, chloride (9CI) (CA INDEX NAME)

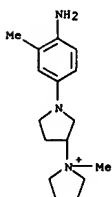
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RN 607355-18-0 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued) INDEX NAME)

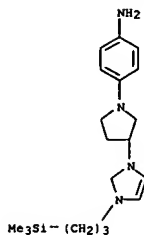
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RN 607355-21-5 CAPLUS
 CN 1,3'-Bipyrrolidininium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

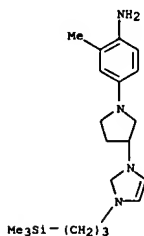
● Cl⁻

RN 701975-01-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[(4-aminophenyl)-N,N-dimethyl-N-tetradecyl]-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

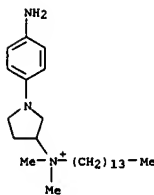
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-19-1 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

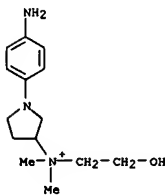
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-20-4 CAPLUS
 CN 1,3'-Bipyrrolidininium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

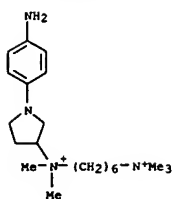
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 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

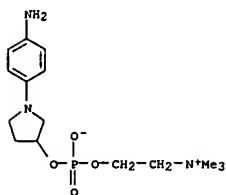
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RN 701975-09-9 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-aminophenyl)-3-pyrrolidinyl]-N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

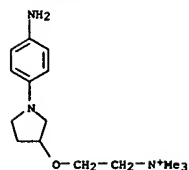
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RN 701975-10-2 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

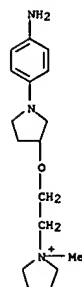


RN 701975-11-3 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

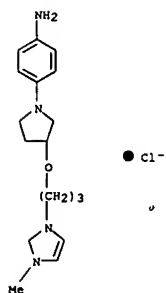
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RN 701975-12-4 CAPLUS
 CN Pyrrolidinium, 1-[2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

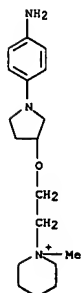
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RN 701975-13-5 CAPLUS
 CN 1H-imidazolium, 1-[3-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

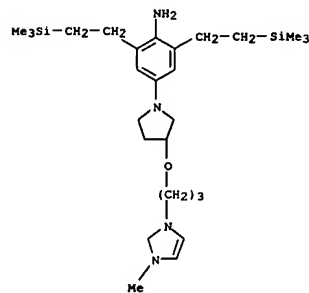
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-14-6 CAPLUS
 CN Piperidinium, 1-[2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

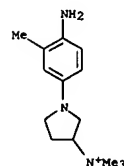
● Cl⁻

RN 701975-15-7 CAPLUS
 CN 1H-imidazolium, 1-[3-[[[1-(4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl]-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

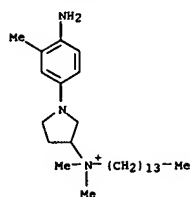
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-16-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

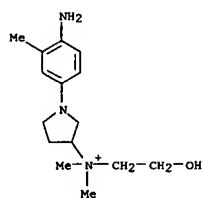
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RN 701975-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-tetradecyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

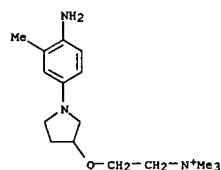
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RN 701975-20-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

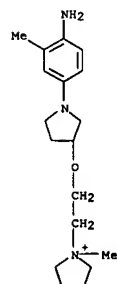
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RN 701975-21-5 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-N,N,N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

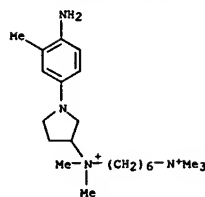
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RN 701975-24-8 CAPLUS
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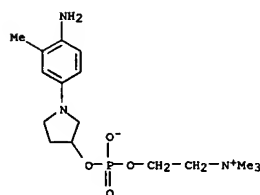
● Cl⁻

RN 701975-25-9 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

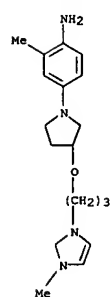
● 2 Cl⁻

RN 701975-22-6 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

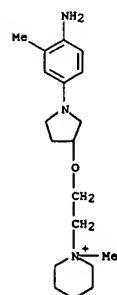


RN 701975-23-7 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

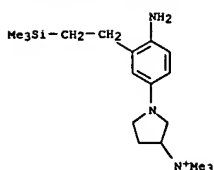
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-26-0 CAPLUS
 CN Piperidinium, 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

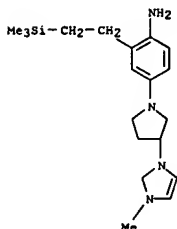
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RN 701975-27-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[4-amino-3-[2-(trimethylsilyl)ethyl]phenyl]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

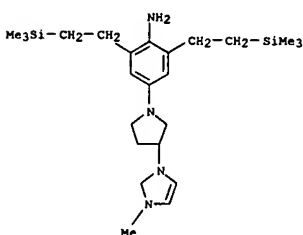
● Cl⁻

RN 701975-28-2 CAPLUS
 CN 1H-imidazolium, 1-[1-[4-amino-3-(2-(trimethylsilyl)ethyl)phenyl]-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

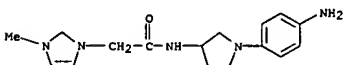
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-29-3 CAPLUS
 CN 1H-imidazolium, 1-[3-[[1-[4-amino-3-(2-(trimethylsilyl)ethyl)phenyl]-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

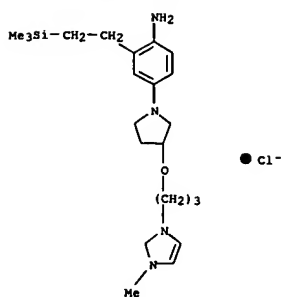
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-32-8 CAPLUS
 CN 1H-imidazolium, 1-[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]amino]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

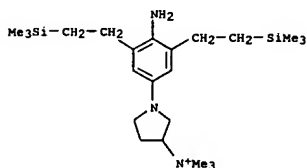
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-33-9 CAPLUS
 CN 1H-imidazolium, 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]amino]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

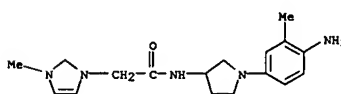
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-30-6 CAPLUS
 CN 3-pyrrolidinaminium, 1-[4-amino-3,5-bis(2-(trimethylsilyl)ethyl)phenyl]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

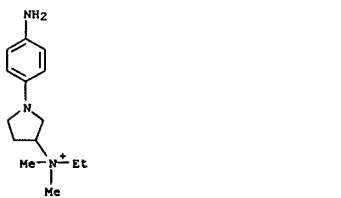
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RN 701975-31-7 CAPLUS
 CN 1H-imidazolium, 1-[1-[4-amino-3,5-bis(2-(trimethylsilyl)ethyl)phenyl]-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-34-0 CAPLUS
 CN 3-pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

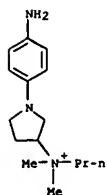
● Cl⁻

RN 701975-35-1 CAPLUS
 CN 3-pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, methyl sulfate (9CI) (CA INDEX NAME)

CN 1

CRN 435275-63-1
 CMF C15 H26 N3

L4 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

CRN 21228-90-0
CMF C H3 O4 SMe-O-SO₃⁻

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

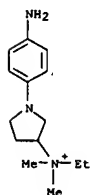
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hair dyeing compns. comprising phenylenediamine with pyrrolidine ring and opacifying or pearlescent agents)

RN 435275-61-9 CAPLUS

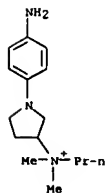
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide (9CI)

(CA INDEX NAME)

● I⁻

RN 435275-62-0 CAPLUS

CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, iodide (9CI) (CA INDEX NAME)

● I⁻

RN 435275-65-3 CAPLUS

CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:482168 CAPLUS

DOCUMENT NUMBER: 141:42540

TITLE: Hair dyeing compositions comprising a tertiary p-phenylenediamine with a pyrrolidine ring and a opacifying or pearlescent agent

INVENTOR(S): Cotteret, Jean; Lagrange, Alain

PATENT ASSIGNEE(S): L'oreal, Fr.

SOURCE: Eur. Pat. Appl., 50 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1428513	A1	20040616	EP 2003-293138	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, HK, CY, AL, TR, BG, CZ, EE, HU, SK				
FR 2848440	A1	20040618	FR 2002-15773	20021213
US 2004250356	A1	20041216	US 2003-735258	20031212
PRIORITY APPLN. INFO.:			FR 2002-15773	A 20021213
			US 2003-450353P	P 20030228

OTHER SOURCE(S): MARPAT 141:42540

ABSTRACT:

Hair dyeing compns. comprise a tertiary p-phenylenediamine with a pyrrolidine ring and a opacifying or pearlescent agent. Thus, a composition contained Naol

20-22 3, Marlipal-2022/300 1, ethoxylated stearyl alc. 6.25, oleic acid 2.6, carbopol-980 0.6, Aculyn-44 4, Flonac FS20C 0.25, coco fatty acid monoisopropanolamide 3, cationic polymer 4, propylene glycol 6, sodium metasilicate 0.71, EDTA 0.2, tert-butylhydroquinone 0.3, 3-[1-(4-aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-1-imidazolium chloride 0.8, 5-N(β-hydroxyethylamino-2-methylphenol) 0.4, monoethanolamine 1, perfume qs, ammonia 11, and water qs to 100 g. The above composition was mixed with 64 H₂O₂ and applied onto hair.

IT 435275-61-9 435275-62-0 435275-65-3

435275-66-4 435275-67-5 435275-68-6

435275-69-7 435275-70-0 435275-72-2

435275-73-3 435275-74-4 435275-82-4

607355-12-4 607355-13-5 607355-16-8

607355-17-9 607355-18-0 607355-19-1

607355-20-4 607355-21-5 701975-01-1

701975-08-8 701975-09-9 701975-10-2

701975-11-3 701975-12-4 701975-13-5

701975-14-6 701975-15-7 701975-16-8

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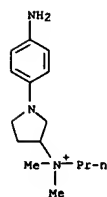
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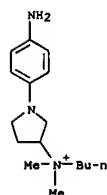
L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Br⁻

RN 435275-66-4 CAPLUS

CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-butyl-N,N-dimethyl-, iodide (9CI)

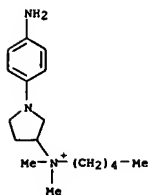
(CA INDEX NAME)

● I⁻

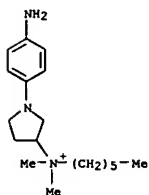
RN 435275-67-5 CAPLUS

CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-pentyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

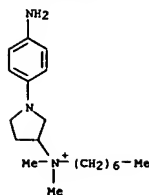
● I⁻

RN 435275-68-6 CAPLUS
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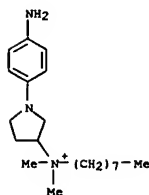
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RN 435275-69-7 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

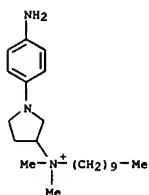
● I⁻

RN 435275-70-0 CAPLUS
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 (CA INDEX NAME)

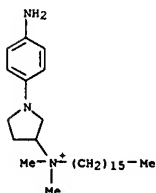
● I⁻

RN 435275-72-2 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

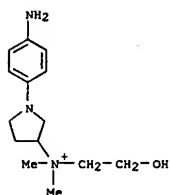
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RN 435275-73-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

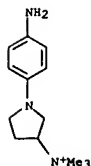
● I⁻

RN 435275-74-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

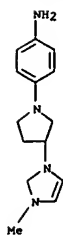
● I⁻

RN 435275-82-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, chloride (9CI)
 (CA INDEX NAME)

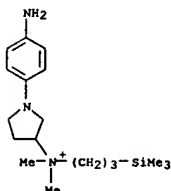
● Cl⁻

RN 607355-12-4 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI)
 (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

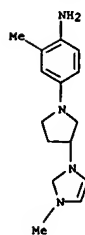
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-13-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

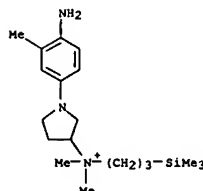
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RN 607355-16-8 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

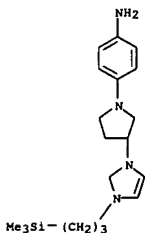
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

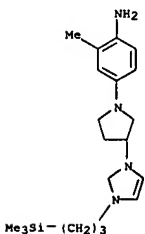
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RN 607355-18-0 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

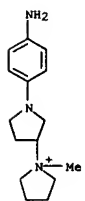
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-19-1 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

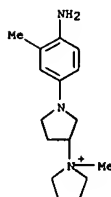
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-20-4 CAPLUS
 CN 1,3'-Bipyrrolidininium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

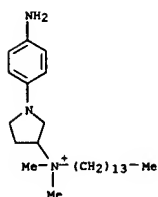
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RN 607355-21-5 CAPLUS
 CN 1,3'-Bipyrrolidininium, 1'-(4-amino-3-methylphenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

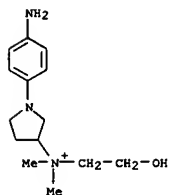
● Cl⁻

RN 701975-01-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-tetradecyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

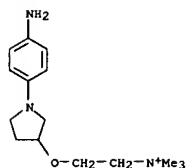
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RN 701975-08-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

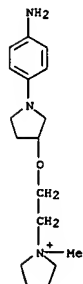
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RN 701975-09-9 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-aminophenyl)-3-pyrrolidinyl]-N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

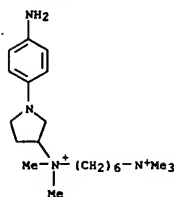
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RN 701975-12-4 CAPLUS
 CN Pyrrolidinium, 1-[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

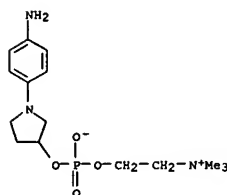
● Cl⁻

RN 701975-13-5 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

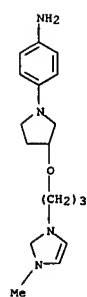
● 2 Cl⁻

RN 701975-10-2 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

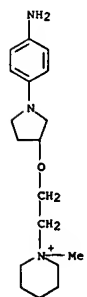


RN 701975-11-3 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

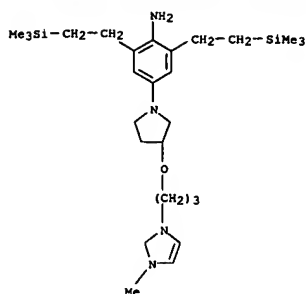
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-14-6 CAPLUS
 CN Piperidinium, 1-[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

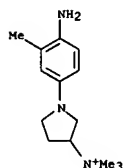
● Cl⁻

RN 701975-15-7 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-(4-amino-3,5-bis(2-(trimethylsilyl)ethyl)phenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

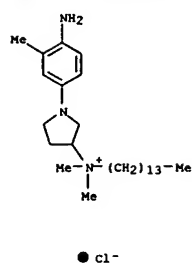


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-16-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

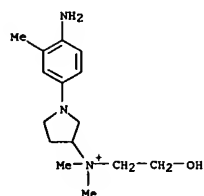


RN 701975-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-tetradecyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

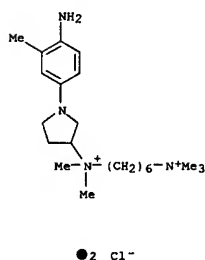


RN 701975-20-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

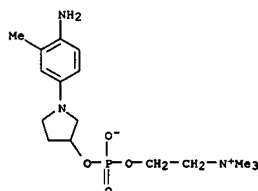


RN 701975-21-5 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

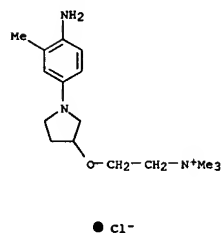


RN 701975-22-6 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

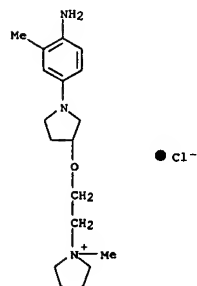


RN 701975-23-7 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

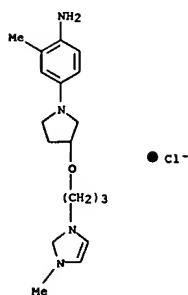


RN 701975-24-8 CAPLUS
 CN Pyrrolidinium, 1-[2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

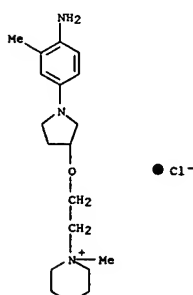


RN 701975-25-9 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

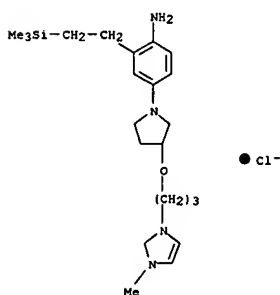


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-26-0 CAPLUS
 CN Piperidinium, 1-(2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

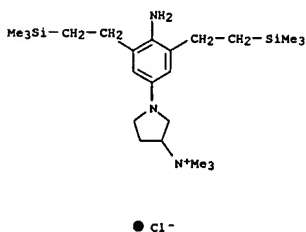


RN 701975-27-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[4-amino-3-(2-(trimethylsilyl)ethyl)phenyl]-N,N,N-

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

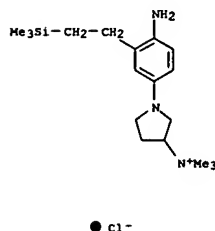


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-30-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[4-amino-3,5-bis(2-(trimethylsilyl)ethyl)phenyl]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

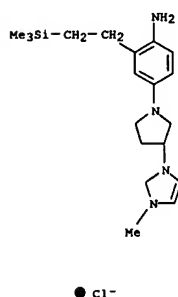


RN 701975-31-7 CAPLUS
 CN 1H-imidazolium, 1-[1-[4-amino-3,5-bis(2-(trimethylsilyl)ethyl)phenyl]-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

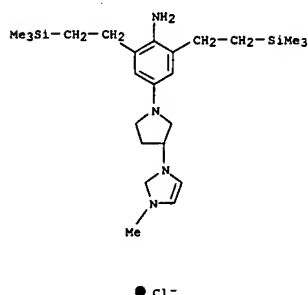


RN 701975-28-2 CAPLUS
 CN 1H-imidazolium, 1-[1-(4-amino-3-(2-(trimethylsilyl)ethyl)phenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

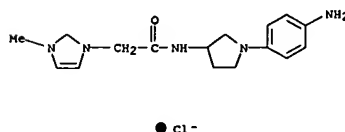


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-29-3 CAPLUS
 CN 1H-imidazolium, 1-[3-[[1-(4-amino-3-(2-(trimethylsilyl)ethyl)phenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

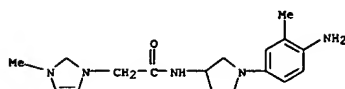


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-32-8 CAPLUS
 CN 1H-imidazolium, 1-[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]amino]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

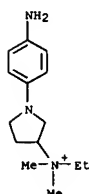


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-33-9 CAPLUS
 CN 1H-imidazolium, 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]amino]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-34-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

RN 701975-35-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 435275-63-1
 CMF C15 H26 N3

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:482167 CAPLUS
 DOCUMENT NUMBER: 141:42539
 TITLE: Hair dyeing compositions comprising a tertiary cationic p-phenylenediamine with a pyrrolidine ring and a p-aminophenol
 INVENTOR(S): Cotteret, Jean; Lagrange, Alain
 PATENT ASSIGNEE(S): L'oreal, Fr.
 SOURCE: Eur. Pat. Appl., 51 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1428512	A1	20040616	EP 2003-293137	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
FR 2848436	A1	20040618	FR 2002-15769	20021213
US 2004216245	A1	20041104	US 2003-735284	20031212
PRIORITY APPLN. INFO.:			FR 2002-15769	A 20021213
			US 2003-451255P	P 20030304

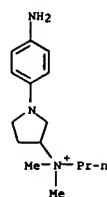
OTHER SOURCE(S): MARPAT 141:42539

ABSTRACT:

Hair dyeing compns. comprise a tertiary cationic p-phenylenediamine with a pyrrolidine ring and a p-aminophenol. Thus, a composition contained oleyl alc. 6, oleic acid 3, polyglyceryl oleyl ether 12, diethylaminopropyl laurylammonosuccinamate sodium salt 3, ethoxylated oleylamine 7, ethoxylated alkyl ether monoethanolamide 10, ammonium acetate 20, hexylene glycol 20, reducing agents 0.915, sequestrants 1, a p-aminophenol 0.2, [1-(4-aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride 0.8, 2-methyl-5-aminophenol 0.5, perfume qs, ammonia 10.2, and water qs to 100 g. The above composition was mixed with 6% H2O2 and applied onto hair.

IT 435275-61-9 435275-62-0 435275-65-3
 435275-66-4 435275-67-5 435275-68-6
 435275-69-7 435275-70-0 435275-72-2
 435275-73-3 435275-74-4 435275-82-4
 607355-12-4 607355-13-5 607355-16-8
 607355-17-9 607355-18-0 607355-19-1
 607355-20-4 607355-21-5 701975-01-1
 701975-08-8 701975-09-9 701975-10-2
 701975-11-3 701975-12-4 701975-13-5
 701975-14-6 701975-15-7 701975-16-8
 701975-17-9 701975-20-4 701975-21-5
 701975-22-6 701975-23-7 701975-24-8
 701975-25-9 701975-26-0 701975-27-1
 701975-28-2 701975-29-3 701975-30-6
 701975-31-7 701975-32-8 701975-33-9
 701975-34-0 701975-35-1
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. comprising cationic phenylenediamine with pyrrolidine ring and aminophenol)
 RN 435275-61-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide (9CI)

L4 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



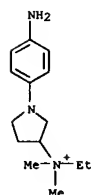
CM 2

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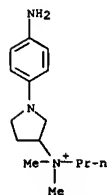
Me-O-SO₃⁻

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

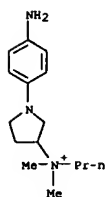
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RN 435275-62-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, iodide (9CI) (CA INDEX NAME)

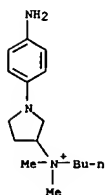
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RN 435275-65-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

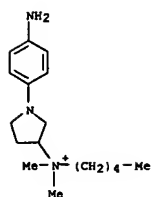
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RN 435275-66-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-butyl-, iodide
 (9CI) (CA INDEX NAME)

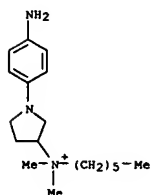
● I⁻

RN 435275-67-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-pentyl-, iodide
 (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

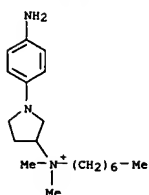
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RN 435275-68-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-hexyl-, iodide
 (9CI) (CA INDEX NAME)

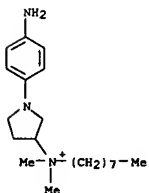
● I⁻

RN 435275-69-7 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-heptyl-, iodide
 (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

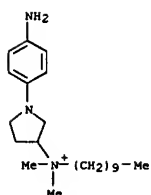
● I⁻

RN 435275-70-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-octyl-, iodide
 (9CI) (CA INDEX NAME)

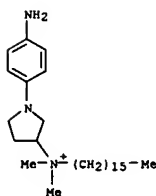
● I⁻

RN 435275-72-2 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-decyl-, iodide
 (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

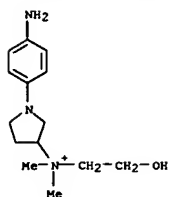
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RN 435275-73-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-hexadecyl-, iodide
 (9CI) (CA INDEX NAME)

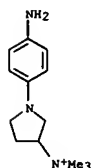
● I⁻

RN 435275-74-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-(2-hydroxyethyl)-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

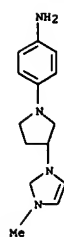
● I⁻

RN 435275-82-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, chloride (9CI)
 (CA INDEX NAME)

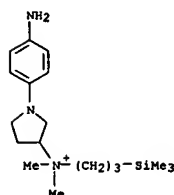
● Cl⁻

RN 607355-12-4 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride
 (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

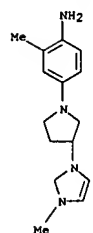
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-13-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

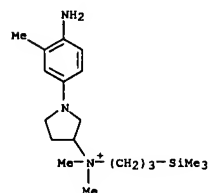
● Cl⁻

RN 607355-16-8 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

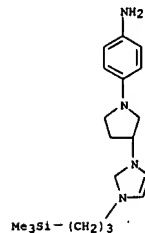
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

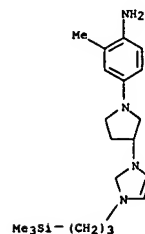
● Cl⁻

RN 607355-18-0 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

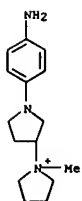
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-19-1 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

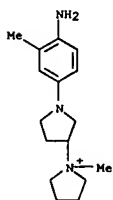
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-20-4 CAPLUS
 CN 1,3'-Bipyrrolidininium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

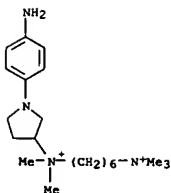
● Cl⁻

RN 607355-21-5 CAPLUS
 CN 1,3'-Bipyrrolidinium, 1'-(4-amino-3-methylphenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

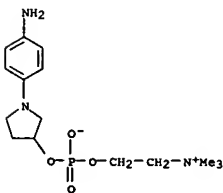
● Cl⁻

RN 701975-01-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-tetradecyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

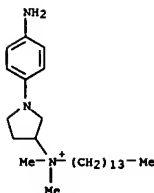
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RN 701975-10-2 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

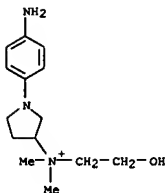


RN 701975-11-3 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

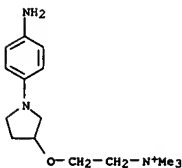
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RN 701975-08-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

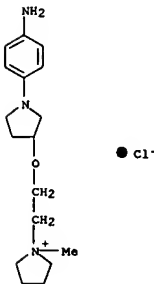
● Cl⁻

RN 701975-09-9 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-aminophenyl)-3-pyrrolidinyl]-N,N,N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

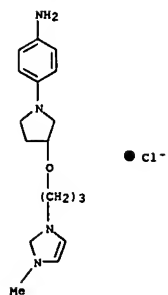
● Cl⁻

RN 701975-12-4 CAPLUS
 CN Pyrrolidinium, 1-[2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

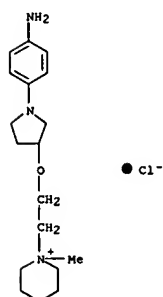
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RN 701975-13-5 CAPLUS
 CN 1H-Imidazolium, 1-{3-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

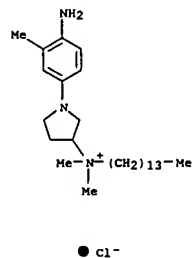


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-14-6 CAPLUS
 CN Piperidinium,
 1-[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-
 , chloride (9CI) (CA INDEX NAME)

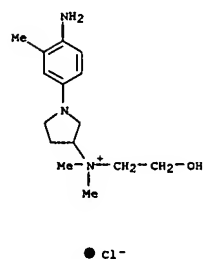


RN 701975-15-7 CAPLUS
 CN 1H-Imidazolium,
 1-[3-[[1-(4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl)-3-pyrrolidinaminium]]-1-methyl-3-pyrrolidinaminium, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

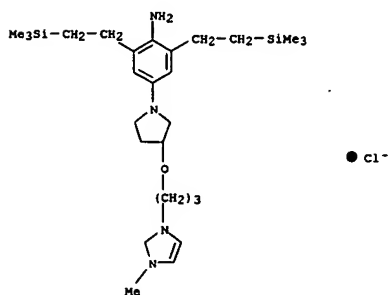


RN 701975-20-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

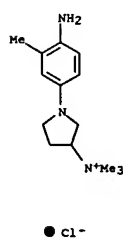


RN 701975-21-5 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

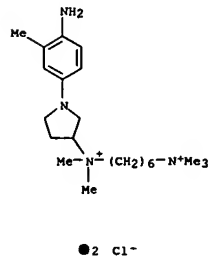


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-16-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

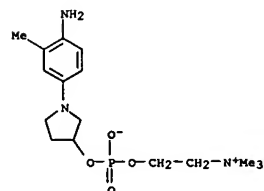


RN 701975-17-9 CAPLUS
 CN 3-Pyrrolidinaminium,
 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-tetradecyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

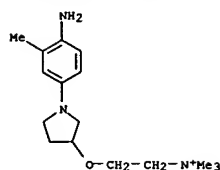


RN 701975-22-6 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

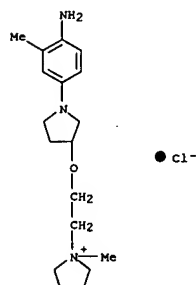


RN 701975-23-7 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

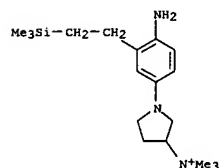
● Cl⁻

RN 701975-24-8 CAPLUS
 CN Pyrrolidinium,
 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-
 1-methyl-, chloride (9CI) (CA INDEX NAME)

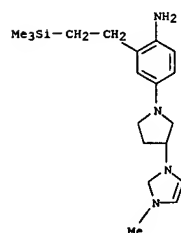
● Cl⁻

RN 701975-25-9 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

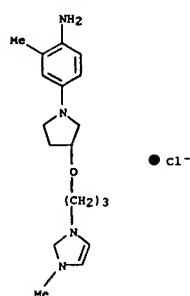
● Cl⁻

RN 701975-28-2 CAPLUS
 CN 1H-Imidazolium, 1-[1-[4-amino-3-(2-(trimethylsilyl)ethyl)phenyl]-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

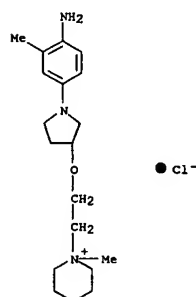
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-29-3 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-(4-amino-3-(2-(trimethylsilyl)ethyl)phenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

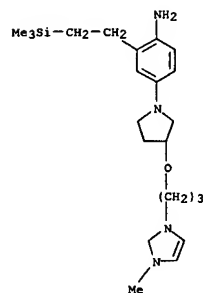
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-26-0 CAPLUS
 CN Piperidinium,
 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-
 1-methyl-, chloride (9CI) (CA INDEX NAME)

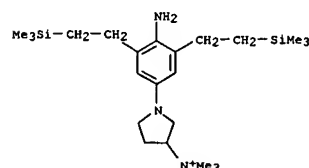
● Cl⁻

RN 701975-27-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[4-amino-3-(2-(trimethylsilyl)ethyl)phenyl]-N,N,N-

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

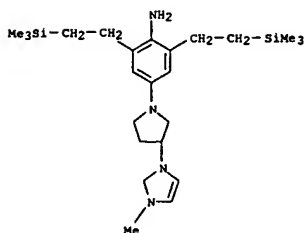
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-30-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl]-
 N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

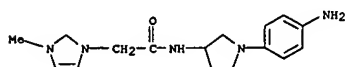
● Cl⁻

RN 701975-31-7 CAPLUS
 CN 1H-Imidazolium, 1-[1-[4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl]-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

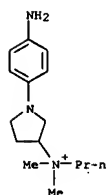
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-32-8 CAPLUS
 CN 1H-imidazolium,
 1-([1-(4-aminophenyl)-3-pyrrolidinyl]amino)-2-oxoethyl]-
 3-methyl-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-33-9 CAPLUS
 CN 1H-imidazolium,
 1-([1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]amino)-2-
 oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



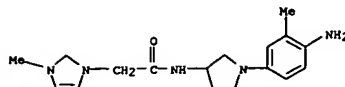
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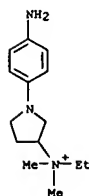
Me⁻ O⁻ SO₃⁻

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L4 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-34-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, chloride
 (9CI) (CA INDEX NAME)

● Cl⁻

RN 701975-35-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, methyl
 sulfate (9CI) (CA INDEX NAME)

CH 1

CRN 435275-63-1
 CMF C15 H26 N3

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:482166 CAPLUS
 DOCUMENT NUMBER: 141:42538
 TITLE: Hair dyeing compositions comprising a tertiary
 p-phenylenediamine with a pyrrolidine ring and a
 cationic polymer
 INVENTOR(S): Cotteret, Jean; Lagrange, Alain
 PATENT ASSIGNEE(S): L'oreal, Fr.
 SOURCE: Eur. Pat. Appl., 49 pp.
 CODEN: EPXDXW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

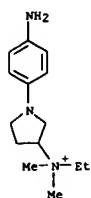
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1428511	A1	20040616	EP 2003-293136	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
FR 2848432	A1	20040618	FR 2002-15765	20021213
US 2004231068	A1	20041125	US 2003-735249	20031212
PRIORITY APPLN. INFO.:			FR 2002-15765	A 20021213
			US 2003-450326P	P 20030228

OTHER SOURCE(S): MARPAT 141:42538

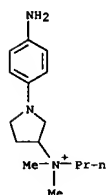
ABSTRACT:
 Hair dyeing compns. comprise a tertiary p-phenylenediamine with a pyrrolidine ring and a cationic polymer. Thus, a composition contained oleic acid 9, polyglyceryl oleyl ether 12, diethylaminopropyl laurylammoniosuccinamate sodium salt 3, ethoxylated oleylamine 7, ethoxylated alkyl ether monoethanolamide 10, ammonium acetate 20, hexylene glycol 20, reducing agents 0.915, sequestrants 1, resorcinol 0.085, [1-(4-aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride 1.0, 2-methyl-5-aminophenol 0.5, perfume qs, ammonia 10.2, and water qs to 100 g. The above composition was mixed with 6% H2O2 and applied onto hair.

IT 435275-61-9 435275-62-0 435275-65-3
 435275-66-4 435275-67-5 435275-68-6
 435275-69-7 435275-70-0 435275-72-2
 435275-73-3 435275-74-4 435275-82-4
 607355-12-4 607355-13-5 607355-16-8
 607355-17-9 607355-18-0 607355-19-1
 607355-20-4 607355-21-5 701975-01-1
 701975-08-8 701975-09-9 701975-10-2
 701975-11-3 701975-12-4 701975-13-5
 701975-14-6 701975-15-7 701975-16-8
 701975-17-9 701975-20-4 701975-21-5
 701975-22-6 701975-23-7 701975-24-8
 701975-25-9 701975-26-0 701975-27-1
 701975-28-2 701975-29-3 701975-30-6
 701975-31-7 701975-32-8 701975-33-9
 701975-34-0 701975-35-1
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. comprising phenylenediamine with pyrrolidine ring
 and cationic polymer)
 RN 435275-61-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide
 (9CI)
 (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

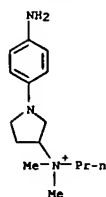
● I⁻

RN 435275-62-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, iodide
 (9CI) (CA INDEX NAME)

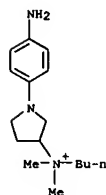
● I⁻

RN 435275-65-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide
 (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

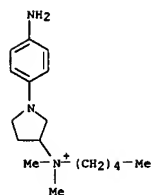
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RN 435275-66-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-butyl-, iodide
 (9CI) (CA INDEX NAME)

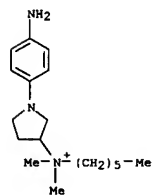
● I⁻

RN 435275-67-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-pentyl-, iodide
 (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

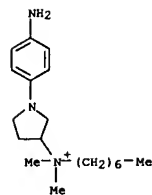
● I⁻

RN 435275-68-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-hexyl-, iodide
 (9CI) (CA INDEX NAME)

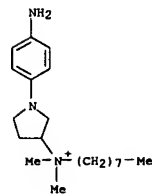
● I⁻

RN 435275-69-7 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-heptyl-, iodide
 (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

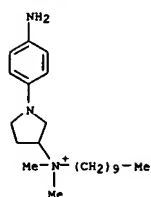
● I⁻

RN 435275-70-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-octyl-, iodide
 (9CI) (CA INDEX NAME)

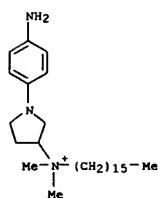
● I⁻

RN 435275-72-2 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-decyl-, iodide
 (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

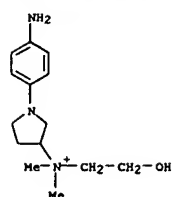
● I⁻

RN 435275-73-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-hexadecyl-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

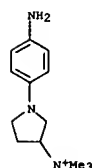
● I⁻

RN 435275-74-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

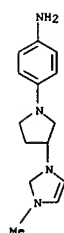
● I⁻

RN 435275-82-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

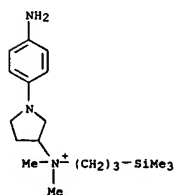
● Cl⁻

RN 607355-12-4 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

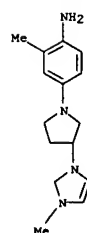
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-13-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

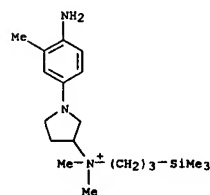
● Cl⁻

RN 607355-16-8 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

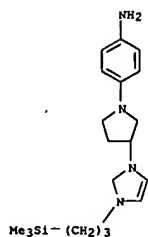
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

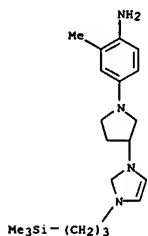
● Cl⁻

RN 607355-18-0 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

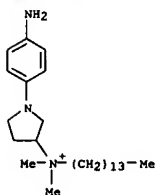
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-19-1 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

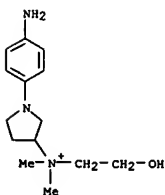
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-20-4 CAPLUS
 CN 1,3'-Bipyrrolidinium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

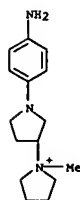
● Br⁻

RN 701975-08-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

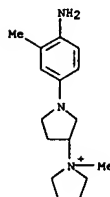
● Cl⁻

RN 701975-09-9 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-aminophenyl)-3-pyrrolidinyl]-N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

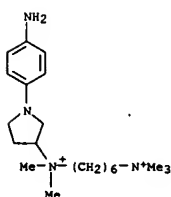
● Cl⁻

RN 607355-21-5 CAPLUS
 CN 1,3'-Bipyrrolidinium, 1'-(4-amino-3-methylphenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

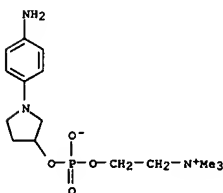
● Cl⁻

RN 701975-01-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-tetradecyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

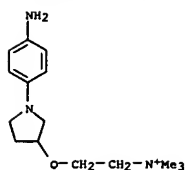
● 2 Cl⁻

RN 701975-10-2 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

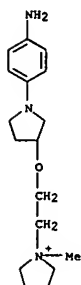


RN 701975-11-3 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

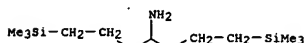
● Cl⁻

RN 701975-12-4 CAPLUS
 CN Pyrrolidinium,
 1-[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-
 , chloride (9CI) (CA INDEX NAME)

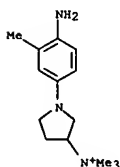
● Cl⁻

RN 701975-13-5 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]propyl]-3-
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L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

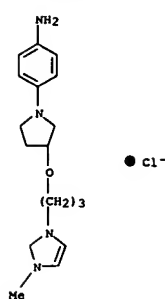
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-16-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N,N-trimethyl-,
 chloride (9CI) (CA INDEX NAME)

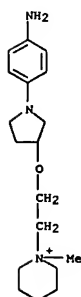
● Cl⁻

RN 701975-17-9 CAPLUS
 CN 3-Pyrrolidinaminium,
 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-tetradecyl-
 , chloride (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

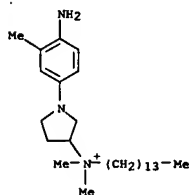
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
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 , chloride (9CI) (CA INDEX NAME)

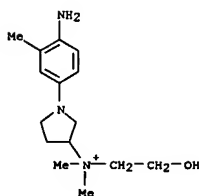
● Cl⁻

RN 701975-15-7 CAPLUS
 CN 1H-Imidazolium,
 1-[3-[[1-(4-amino-3,5-bis(2-(trimethylsilyl)ethyl)phenyl)-

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

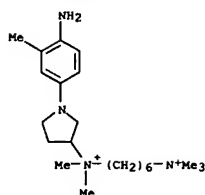
● Cl⁻

RN 701975-20-4 CAPLUS
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 dimethyl-, chloride (9CI) (CA INDEX NAME)

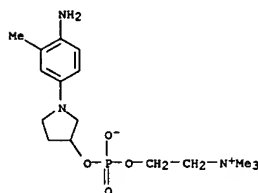
● Cl⁻

RN 701975-21-5 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-
 N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

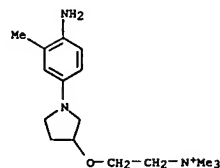
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RN 701975-22-6 CAPLUS
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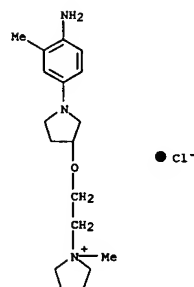


RN 701975-23-7 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

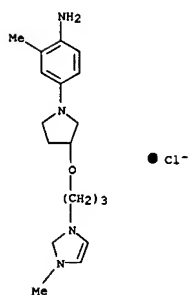
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RN 701975-24-8 CAPLUS
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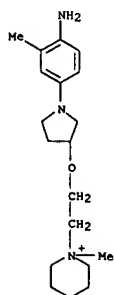
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RN 701975-25-9 CAPLUS
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L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

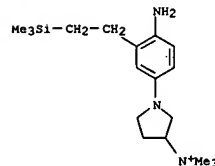
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-26-0 CAPLUS
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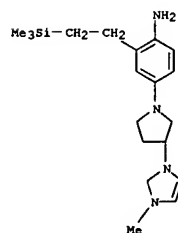
● Cl⁻

RN 701975-27-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[4-amino-3-[2-(trimethylsilyl)ethyl]phenyl]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

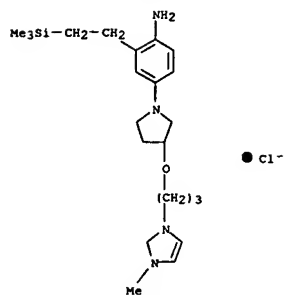
● Cl⁻

RN 701975-28-2 CAPLUS
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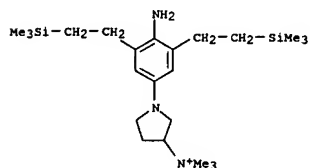
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-29-3 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[[1-(4-amino-3-[2-(trimethylsilyl)ethyl]phenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

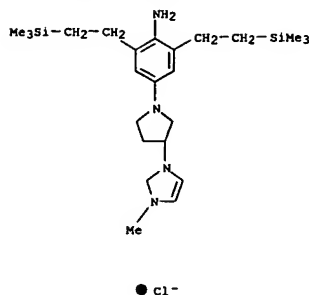


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-30-6 CAPLUS
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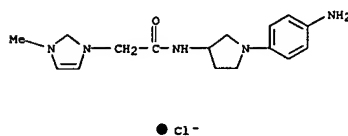


RN 701975-31-7 CAPLUS
 CN 1H-Imidazolium, 1-[1-[4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl]-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

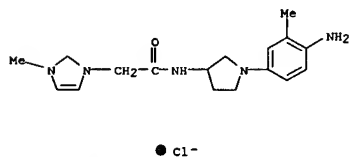


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 RN 701975-32-8 CAPLUS
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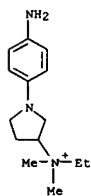


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-33-9 CAPLUS
 CN 1H-Imidazolium, 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]amino]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-34-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

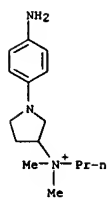


RN 701975-35-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 435275-63-1
 CMF C15 H26 N3

L4 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

CRN 21228-90-0
 CMF C H3 O4 S

Me-O-SO₃⁻

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:482163 CAPLUS
 DOCUMENT NUMBER: 141:59175
 TITLE: Hair dyeing compositions comprising a tertiary p-phenylenediamine with a pyrrolidine ring and a heterocyclic coupler or a hydroxybenzamide
 INVENTOR(S): Cotteret, Jean; Lagrange, Alain
 PATENT ASSIGNEE(S): L'oreal, Fr.
 SOURCE: Eur. Pat. Appl., 59 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

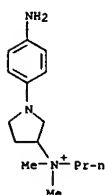
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1428510	A1	20040616	EP 2003-293135	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, 1E, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
FR 2848434	A1	20040618	FR 2002-15767	20021213
US 2004231067	A1	20041125	US 2003-734750	20031212
PRIORITY APPLN. INFO.:			FR 2002-15767	A 20021213
			US 2003-450322P	P 20030228

OTHER SOURCE(S): MARPAT 141:59175

ABSTRACT:
 Hair dyeing compns. comprise a tertiary p-phenylenediamine with a pyrrolidine ring and a heterocyclic coupler or a hydroxybenzamide. Thus, a composition contained oleyl alc. 6, oleic acid 3, polyglyceryl oleyl ether 12, diethylaminopropyl laurylammonosuccinate sodium salt 3, ethoxylated oleylamine 7, ethoxylated alkyl ether monoethanolamide 10, ammonium acetate 20, hexylene glycol 20, reducing agents 0.915, sequestrants 1, [1-(4-aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride 0.8, 6-methoxy-2,3-diaminopyridine 0.5, perfume qs, ammonia 10.2, and water qs to 100 g. The above composition was mixed with 6% H2O2 and applied onto hair.

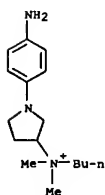
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L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide (9CI) (CA INDEX NAME)



• Br⁻

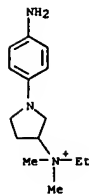
RN 435275-66-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-butyl-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)



• I⁻

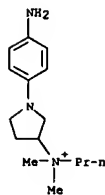
RN 435275-67-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-pentyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 701975-34-0 701975-35-1
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. comprising phenylenediamine with pyrrolidine ring and heterocyclic coupler or hydroxybenzamide)
 RN 435275-61-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)



• I⁻

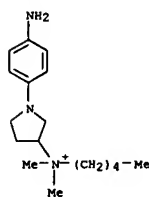
RN 435275-62-0 CAPLUS
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• I⁻

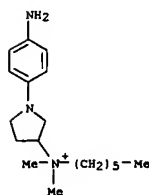
RN 435275-65-3 CAPLUS

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



• I⁻

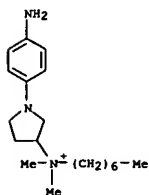
RN 435275-68-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-hexyl-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)



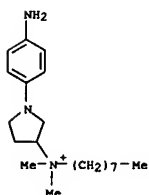
• I⁻

RN 435275-69-7 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-heptyl-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

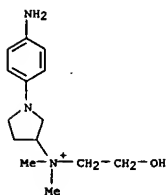
● I⁻

RN 435275-70-0 CAPLUS
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 (CA INDEX NAME)

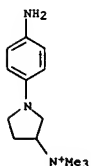
● I⁻

RN 435275-72-2 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-decyl-, iodide (9CI)
 (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

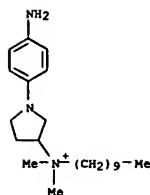
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RN 435275-82-4 CAPLUS
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 (CA INDEX NAME)

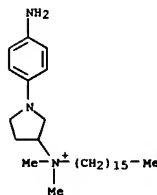
● Cl⁻

RN 607355-12-4 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI)
 (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

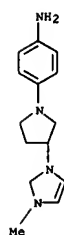
● I⁻

RN 435275-73-3 CAPLUS
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 (CA INDEX NAME)

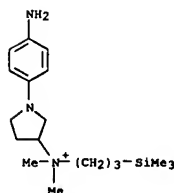
● I⁻

RN 435275-74-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-(2-hydroxyethyl)-, iodide (9CI)
 (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

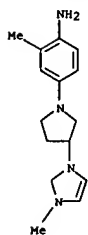
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-13-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI)
 (CA INDEX NAME)

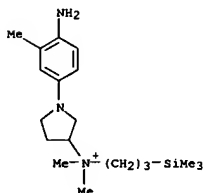
● Cl⁻

RN 607355-16-8 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI)
 (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

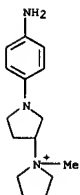
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

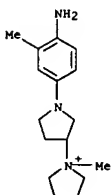
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RN 607355-18-0 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued) INDEX NAME)

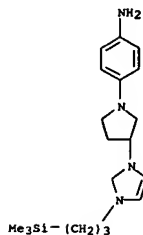
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RN 607355-21-5 CAPLUS
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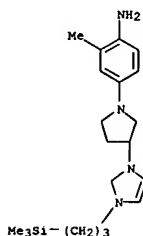
● Cl⁻

RN 701975-01-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-tetradecyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

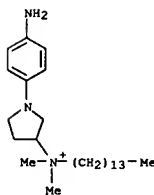
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-19-1 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

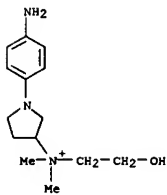
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-20-4 CAPLUS
 CN 1,3'-Bipyrrrolidininium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

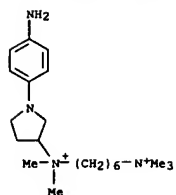
● Br⁻

RN 701975-08-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-(2-hydroxyethyl)-, chloride (9CI) (CA INDEX NAME)

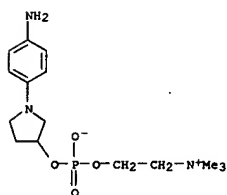
● Cl⁻

RN 701975-09-9 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-aminophenyl)-3-pyrrolidinyl]-N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

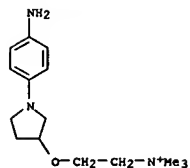
● 2 Cl⁻

RN 701975-10-2 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

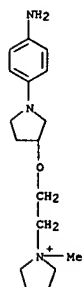


RN 701975-11-3 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

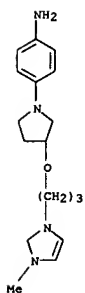
● Cl⁻

RN 701975-12-4 CAPLUS
 CN Pyrrolidinium, 1-[2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

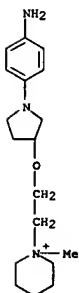
● Cl⁻

RN 701975-13-5 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

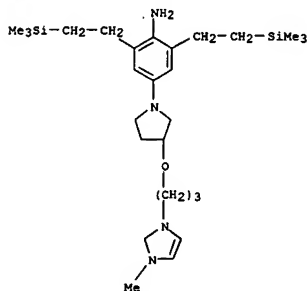
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-14-6 CAPLUS
 CN Piperidinium, 1-[2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

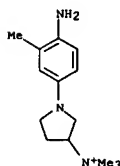
● Cl⁻

RN 701975-15-7 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[[1-(4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl]-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

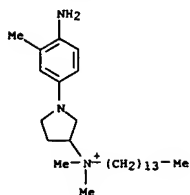
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-16-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

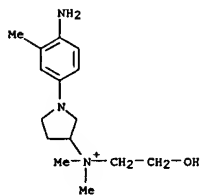
● Cl⁻

RN 701975-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

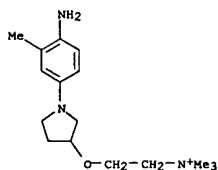
● Cl⁻

RN 701975-20-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

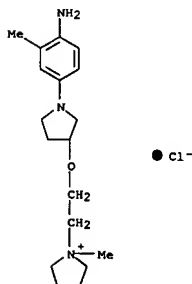
● Cl⁻

RN 701975-21-5 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

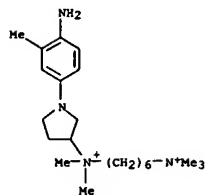
● Cl⁻

RN 701975-24-8 CAPLUS
 CN Pyrrolidinium, 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

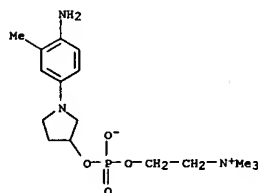
● Cl⁻

RN 701975-25-9 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

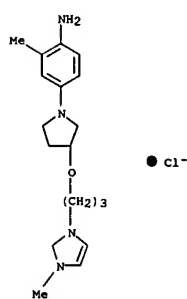
● 2 Cl⁻

RN 701975-22-6 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)



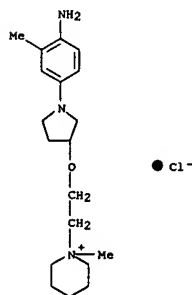
RN 701975-23-7 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

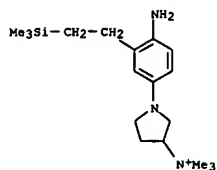
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 701975-26-0 CAPLUS
 CN Piperidinium, 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

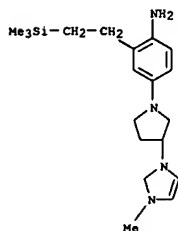
● Cl⁻

RN 701975-27-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-(2-(trimethylsilyl)ethyl)phenyl)-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

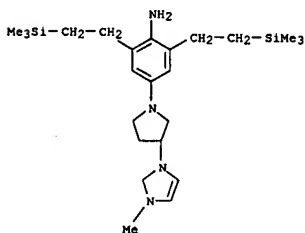
● Cl⁻

RN 701975-28-2 CAPLUS
 CN 1H-Imidazolium, 1-[[1-[4-amino-3-(2-(trimethylsilyl)ethyl)phenyl]-3-pyrrolidinyl]-3-methyl]-, chloride (9CI) (CA INDEX NAME)

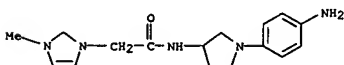
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-29-3 CAPLUS
 CN 1H-Imidazolium, 1-[[3-[[1-[4-amino-3-(2-(trimethylsilyl)ethyl)phenyl]-3-pyrrolidinyl]oxypropyl]-3-methyl]-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

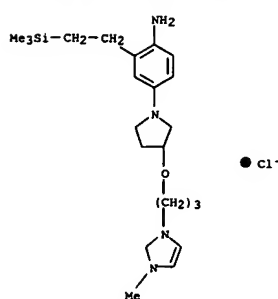
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-32-8 CAPLUS
 CN 1H-Imidazolium, 1-[[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]amino]-2-oxoethyl]-3-methyl]-, chloride (9CI) (CA INDEX NAME)

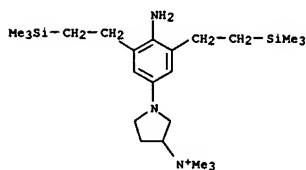
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-33-9 CAPLUS
 CN 1H-Imidazolium, 1-[[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]amino]-2-oxoethyl]-3-methyl]-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

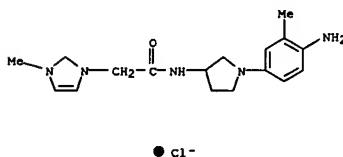
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-30-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[[1-[4-amino-3,5-bis(2-(trimethylsilyl)ethyl)phenyl]-N,N,N-trimethyl]-, chloride (9CI) (CA INDEX NAME)

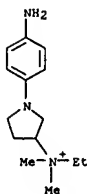
● Cl⁻

RN 701975-31-7 CAPLUS
 CN 1H-Imidazolium, 1-[[1-[4-amino-3,5-bis(2-(trimethylsilyl)ethyl)phenyl]-3-pyrrolidinyl]-3-methyl]-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-34-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[[1-(4-aminophenyl)-N-ethyl-N,N-dimethyl]-, chloride (9CI) (CA INDEX NAME)

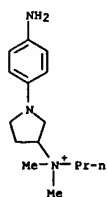
● Cl⁻

RN 701975-35-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[[1-(4-aminophenyl)-N,N-dimethyl-N-propyl]-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 435275-63-1
 CMF C15 H26 N3

L4 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

CRN 21228-90-0
CMF C H3 O4 SMe-O-SO₃⁻

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

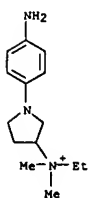
L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:482164 CAPLUS
 DOCUMENT NUMBER: 141:42537
 TITLE: Hair dyeing compositions comprising a tertiary p-phenylenediamine with a pyrrolidine ring and a polyol
 INVENTOR(S): Cotteret, Jean; Lagrange, Alain
 PATENT ASSIGNEE(S): L'oreal, Fr.
 SOURCE: Eur. Pat. Appl., 50 pp.
 CODEN: EPXXDX
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1428509	A1	20040616	EP 2003-293134	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, 18, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
FR 2848438	A1	20040618	FR 2002-15771	20021213
US 2004226109	A1	20041118	US 2003-734653	20031212
PRIORITY APPLN. INFO.:			FR 2002-15771	A 20021213
			US 2003-444648P	P 20030204

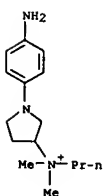
OTHER SOURCE(S): MARPAT 141:42537
 ABSTRACT: Hair dyeing compns. comprise a tertiary p-phenylenediamine with a pyrrolidine ring and a polyol. Thus, a composition contained oleic acid 9, polyglyceryl oleyl ether 12, diethylaminopropyl laurylamino succinate sodium salt 3, ethoxylated oleylamine 7, ethoxylated alkyl ether monoethanolamide 10, ammonium acetate 20, hexylene glycol 20, reducing agents 0.915, sequestrants 1, resorcinol 0.085, [1-(4-aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride 1.0, 2-methyl-5-aminophenol 0.5, perfume qs, ammonia 10.2, and water qs to 100 g. The above composition was mixed with 6% H₂O₂ and applied onto hair.

IT 435275-61-9 435275-62-0 435275-65-3
 435275-66-4 435275-67-5 435275-68-6
 435275-69-7 435275-70-0 435275-72-2
 435275-73-3 435275-74-4 435275-82-4
 607355-12-4 607355-13-5 607355-16-8
 607355-17-9 607355-18-0 607355-19-1
 607355-20-4 607355-21-5 701975-01-1
 701975-08-9 701975-09-9 701975-10-2
 701975-11-3 701975-12-4 701975-13-5
 701975-14-6 701975-15-7 701975-16-8
 701975-17-9 701975-20-4 701975-21-5
 701975-22-6 701975-23-7 701975-24-8
 701975-25-9 701975-26-0 701975-27-1
 701975-28-2 701975-29-3 701975-30-6
 701975-31-7 701975-32-8 701975-33-9
 701975-34-0 701975-35-1
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. comprising phenylenediamine with pyrrolidine ring

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 and polyol)
 RN 435275-61-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

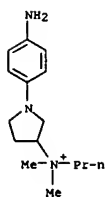
● I⁻

RN 435275-62-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, iodide (9CI) (CA INDEX NAME)

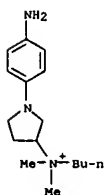
● I⁻

RN 435275-65-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

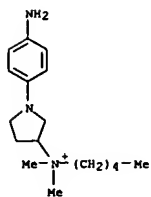
● Br⁻

RN 435275-66-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-butyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

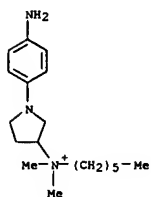
● I⁻

RN 435275-67-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-pentyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

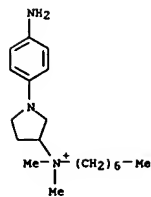
● I⁻

RN 435275-68-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-hexyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

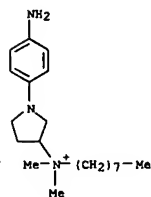
● I⁻

RN 435275-69-7 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-heptyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

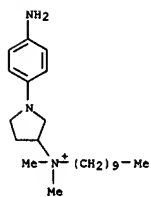
● I⁻

RN 435275-70-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-octyl-, iodide (9CI)
 (CA INDEX NAME)

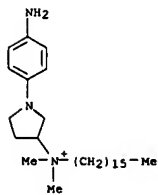
● I⁻

RN 435275-72-2 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-decyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

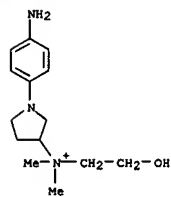
● I⁻

RN 435275-73-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-hexadecyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

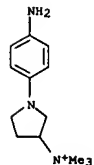
● I⁻

RN 435275-74-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

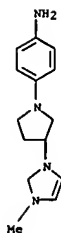
● I⁻

RN 435275-82-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, chloride (9CI)
 (CA INDEX NAME)

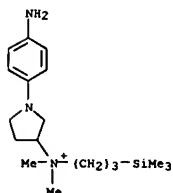
● Cl⁻

RN 607355-12-4 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI)
 (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

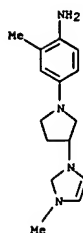
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-13-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

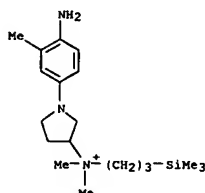
● Cl⁻

RN 607355-16-8 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

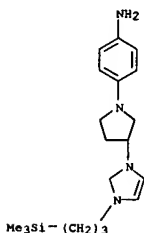
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

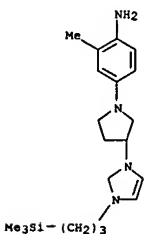
● Cl⁻

RN 607355-18-0 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

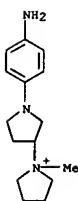
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-19-1 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

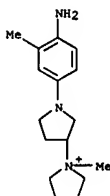
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-20-4 CAPLUS
 CN 1,3'-Bipyrrrolidininium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

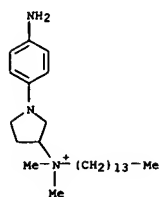
● Cl⁻

RN 607355-21-5 CAPLUS
 CN 1,3'-Bipyrrrolidininium, 1'-(4-amino-3-methylphenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

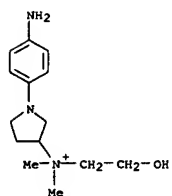
● Cl⁻

RN 701975-01-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-tetradecyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

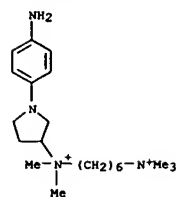
● Br⁻

RN 701975-08-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

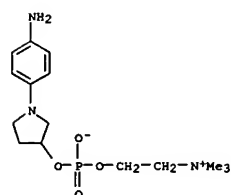
● Cl⁻

RN 701975-09-9 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-aminophenyl)-3-pyrrolidinyl]-N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

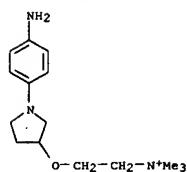
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RN 701975-10-2 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

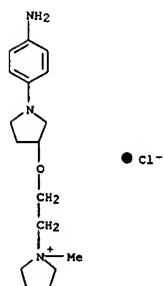


RN 701975-11-3 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

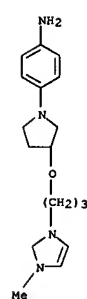
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RN 701975-12-4 CAPLUS
 CN Pyrrolidinium, 1-[2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

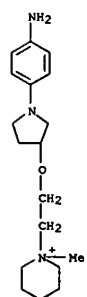
● Cl⁻

RN 701975-13-5 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

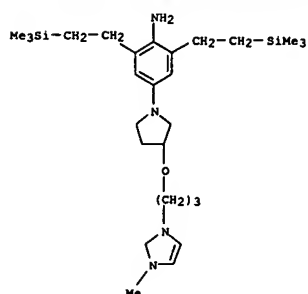
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-14-6 CAPLUS
 CN Piperidinium, 1-[2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

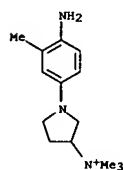
● Cl⁻

RN 701975-15-7 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[[1-(4-amino-3,5-bis(2-(trimethylsilyl)ethyl)phenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

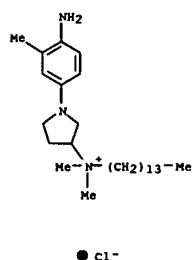


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-16-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

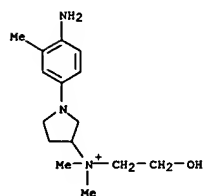


RN 701975-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-tetradecyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

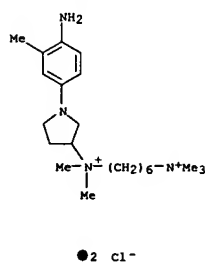


RN 701975-20-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

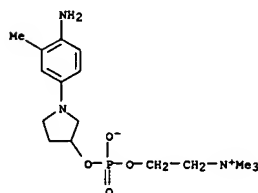


RN 701975-21-5 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

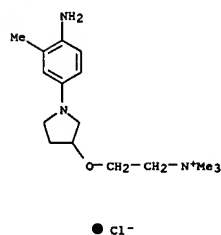


RN 701975-22-6 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

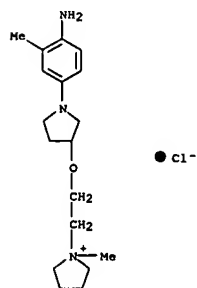


RN 701975-23-7 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

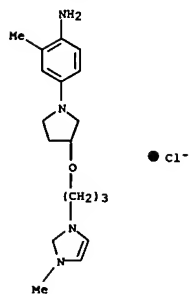


RN 701975-24-8 CAPLUS
 CN Pyrrolidinium, 1-[2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

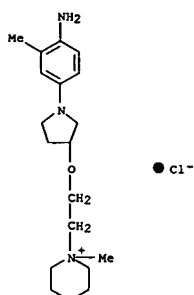


RN 701975-25-9 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

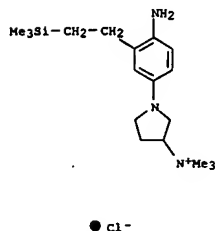


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-26-0 CAPLUS
 CN Piperidinium, 1-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

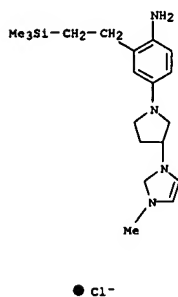


RN 701975-27-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-[2-(trimethylsilyl)ethyl]phenyl)-N,N,N-

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

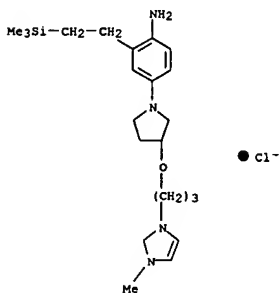


RN 701975-28-2 CAPLUS
 CN 1H-Imidazolium, 1-[[1-(4-amino-3-[2-(trimethylsilyl)ethyl]phenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

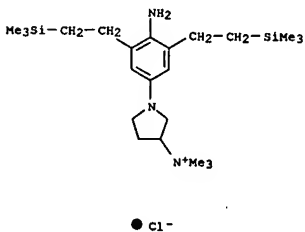


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-29-3 CAPLUS
 CN 1H-Imidazolium, 1-[[1-(4-amino-3-[2-(trimethylsilyl)ethyl]phenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

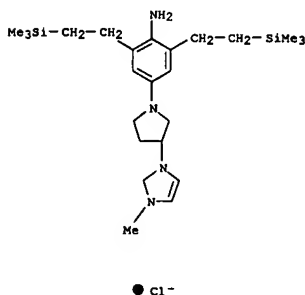


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-30-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[[1-(4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl)-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

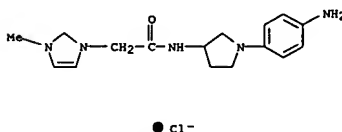


RN 701975-31-7 CAPLUS
 CN 1H-Imidazolium, 1-[[1-(4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl)-3-pyrrolidinaminium]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

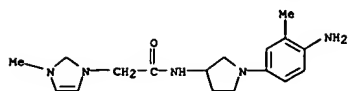


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-32-8 CAPLUS
 CN 1H-Imidazolium, 1-[[1-(4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl)-3-pyrrolidinaminium]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

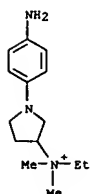


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-33-9 CAPLUS
 CN 1H-Imidazolium, 1-[[1-(4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl)-3-pyrrolidinaminium]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-34-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

RN 701975-35-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 435275-63-1
 CMF C15 H26 N3

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:482163 CAPLUS
 DOCUMENT NUMBER: 141:42536
 TITLE: Hair dyeing compositions comprising a tertiary p-phenylenediamine with a pyrrolidine ring and a monosaccharide or disaccharide
 INVENTOR(S): Cotteret, Jean; Lagrange, Alain
 PATENT ASSIGNEE(S): L'oreal, Fr.
 SOURCE: Eur. Pat. Appl., 50 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1428508	AI	20040616	EP 2003-293133	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
FR 2848442	AI	20040618	FR 2002-15775	20021213
US 2004221400	AI	20041111	US 2003-735292	20031212
PRIORITY APPLN. INFO.:			FR 2002-15775	A 20021213
			US 2003-444623P	P 20030204

OTHER SOURCE(S): MARPAT 141:42536

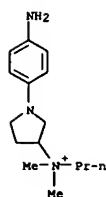
ABSTRACT:
 Hair dyeing compns. comprise a tertiary p-phenylenediamine with a pyrrolidine ring and a monosaccharide or disaccharide. Thus, a composition contained oleic acid
 9, polyglyceryl oleyl ether 12, diethylaminopropyl laurylamino succinate sodium salt 3, ethoxylated oleylamine 7, ethoxylated alkyl ether monoethanolamide 10, ammonium acetate 20, hexylene glycol 20, reducing agents 0.915, saccharose 1, sequestrants 1, resorcinol 0.085, [1-(4-aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride 1.0, 2-methyl-5-aminophenol 0.5, perfume qs, ammonia 10.2 and water qs to 100 g. The above composition was mixed with 6% H2O2 and applied onto hair.

IT 435275-61-9 435275-62-0 435275-65-3
 435275-66-4 435275-67-5 435275-68-6
 435275-69-7 435275-70-0 435275-72-2
 435275-73-3 435275-74-4 435275-82-4
 607355-12-4 607355-13-5 607355-16-8
 607355-17-9 607355-18-0 607355-19-1
 607355-20-4 607355-21-5 701975-01-1
 701975-08-8 701975-09-9 701975-10-2
 701975-11-3 701975-12-4 701975-13-5
 701975-14-6 701975-15-7 701975-16-8
 701975-17-9 701975-20-4 701975-21-5
 701975-22-6 701975-23-7 701975-24-8
 701975-25-9 701975-26-0 701975-27-1
 701975-28-2 701975-29-3 701975-30-6
 701975-31-7 701975-32-8 701975-33-9
 701975-34-0 701975-35-1

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. comprising phenylenediamine with pyrrolidine ring and monosaccharide or disaccharide)

RN 435275-61-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide (9CI)

L4 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



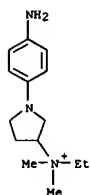
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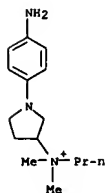
Me-O-SO₃⁻

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
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L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

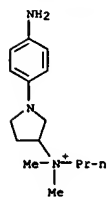
● I⁻

RN 435275-62-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, iodide (9CI) (CA INDEX NAME)

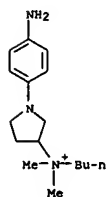
● I⁻

RN 435275-65-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

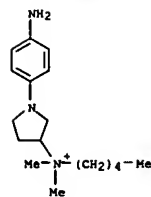
● Br⁻

RN 435275-66-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-butyl-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

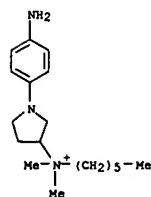
● I⁻

RN 435275-67-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-pentyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

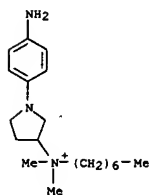
● I⁻

RN 435275-68-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-hexyl-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

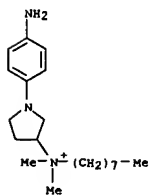
● I⁻

RN 435275-69-7 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-heptyl-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

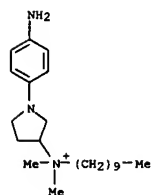
● I⁻

RN 435275-70-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-octyl-, iodide (9CI) (CA INDEX NAME)

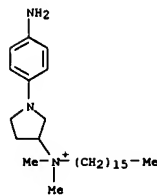
● I⁻

RN 435275-72-2 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-decyl-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

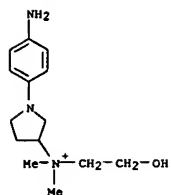
● I⁻

RN 435275-73-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-hexadecyl-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

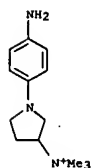
● I⁻

RN 435275-74-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

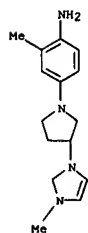
● I⁻

RN 435275-82-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, chloride (9CI)
 (CA INDEX NAME)

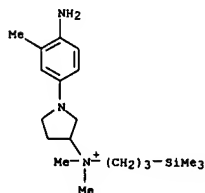
● Cl⁻

RN 607355-12-4 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride
 (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

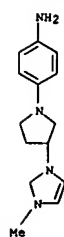
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

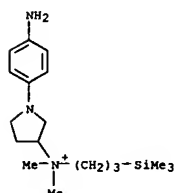
● Cl⁻

RN 607355-18-0 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

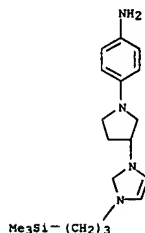
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-13-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

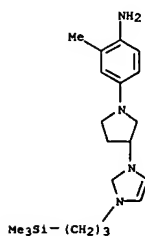
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RN 607355-16-8 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

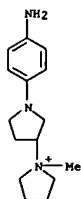
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-19-1 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

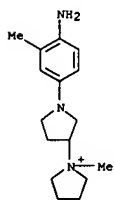
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-20-4 CAPLUS
 CN 1,3'-Bipyrrolidininium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

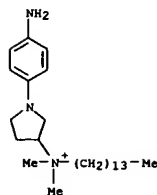
● Cl⁻

RN 607355-21-5 CAPLUS
 CN 1,3'-Bipyrrolidinium, 1'-(4-amino-3-methylphenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

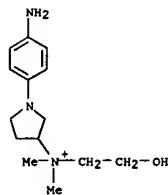
● Cl⁻

RN 701975-01-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-tetradecyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

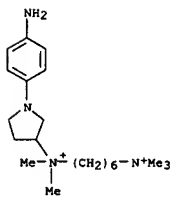
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RN 701975-08-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

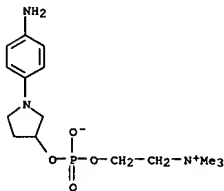
● Cl⁻

RN 701975-09-9 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-aminophenyl)-3-pyrrolidinyl]-N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

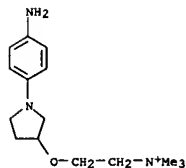
● 2 Cl⁻

RN 701975-10-2 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

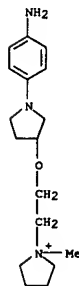


RN 701975-11-3 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

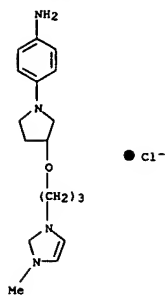
● Cl⁻

RN 701975-12-4 CAPLUS
 CN Pyrrolidinium, 1-[2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

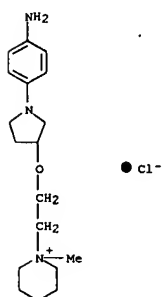
● Cl⁻

RN 701975-13-5 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

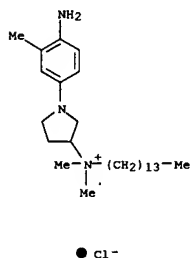


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-14-6 CAPLUS
 CN Piperidinium,
 1-[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-
 , chloride (9CI) (CA INDEX NAME)

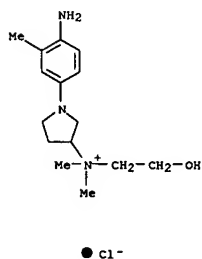


RN 701975-15-7 CAPLUS
 CN 1H-Imidazolium,
 1-[3-[[1-(4-amino-3,5-bis(2-(trimethylsilyl)ethyl)phenyl)-

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

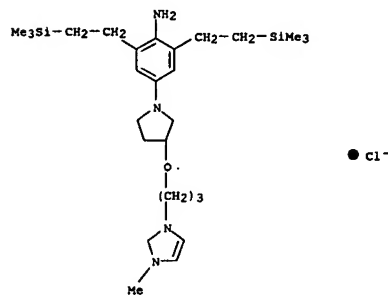


RN 701975-20-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N-(2-hydroxyethyl)-N,N-
 dimethyl-, chloride (9CI) (CA INDEX NAME)

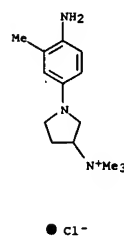


RN 701975-21-5 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-
 N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

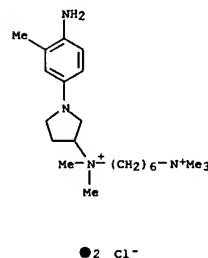


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-16-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N,N-trimethyl-,
 chloride (9CI) (CA INDEX NAME)

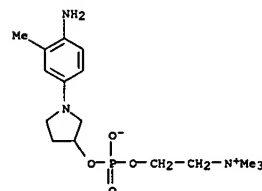


RN 701975-17-9 CAPLUS
 CN 3-Pyrrolidinaminium,
 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-tetradecyl-
 , chloride (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

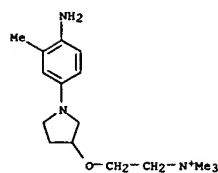


RN 701975-22-6 CAPLUS
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 pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt
 (9CI) (CA INDEX NAME)

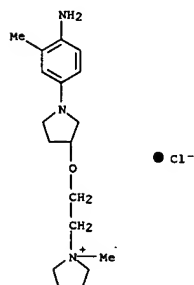


RN 701975-23-7 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]-N,N,N-
 trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

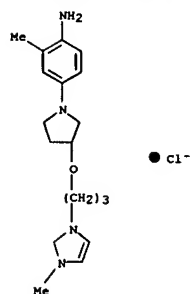
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RN 701975-24-8 CAPLUS
 CN Pyrrolidinium,
 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-
 1-methyl-, chloride (9CI) (CA INDEX NAME)

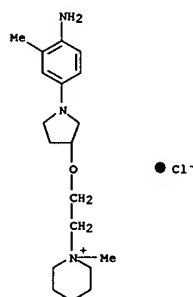
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RN 701975-25-9 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-(4-amino-3-methylphenyl)-3-
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L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

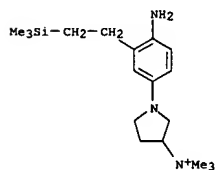
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-26-0 CAPLUS
 CN Piperidinium,
 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-
 1-methyl-, chloride (9CI) (CA INDEX NAME)

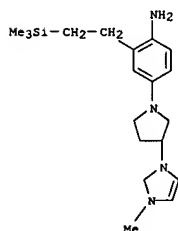
● Cl⁻

RN 701975-27-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[4-amino-3-[2-(trimethylsilyl)ethyl]phenyl]-N,N,N-

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

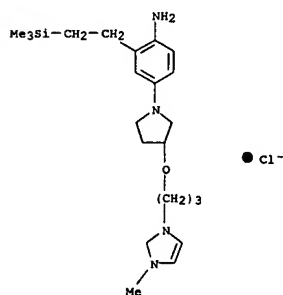
● Cl⁻

RN 701975-28-2 CAPLUS
 CN 1H-Imidazolium, 1-[1-[4-amino-3-[2-(trimethylsilyl)ethyl]phenyl]-3-
 pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

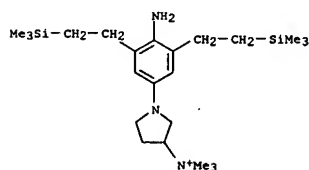
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-29-3 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-(4-amino-3-[2-(trimethylsilyl)ethyl]phenyl)-3-
 pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

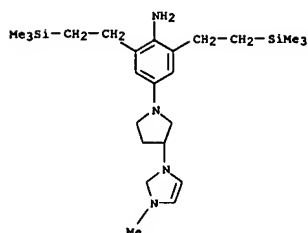
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-30-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl]-
 N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

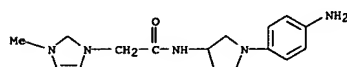
● Cl⁻

RN 701975-31-7 CAPLUS
 CN 1H-Imidazolium, 1-[1-[4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl]-3-
 pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

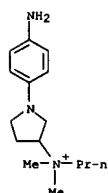
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-32-8 CAPLUS
 CN 1H-imidazolium,
 1-([1-(4-aminophenyl)-3-pyrrolidinyl]amino)-2-oxoethyl]-
 3-methyl-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-33-9 CAPLUS
 CN 1H-imidazolium,
 1-([1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]amino)-2-
 oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

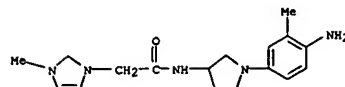


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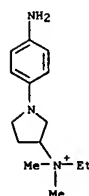
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REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
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 FORMAT

L4 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-34-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, chloride
 (9CI) (CA INDEX NAME)

● Cl⁻

RN 701975-35-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, methyl
 sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 435275-63-1
CMF C15 H26 N3

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

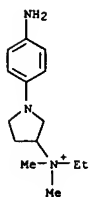
ACCESSION NUMBER: 2004:482162 CAPLUS
 DOCUMENT NUMBER: 141:42535
 TITLE: Hair dyeing composition comprising a cationic
 p-phenylenediamine with a pyrrolidine ring and a
 dicarboxylic acid
 INVENTOR(S): Cotteret, Jean; Lagrange, Alain
 PATENT ASSIGNEE(S): L'oreal, Fr.
 SOURCE: Eur. Pat. Appl., 50 pp.
 CODEN: EPXDXW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:
 PATENT NO. KIND DATE APPLICATION NO. DATE
 EP 1428507 A1 20040616 EP 2003-293132 20031212
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
 FR 2848435 A1 20040618 FR 2002-15768 20021213
 US 2004216244 A1 20041104 US 2003-735273 20031212
 PRIORITY APPLN. INFO.: FR 2002-15768 A 20021213
 US 2003-450344P P 20030228

OTHER SOURCE(S): MARPAT 141:42535

ABSTRACT:
 Hair dyeing compns. comprise a cationic p-phenylenediamine with a pyrrolidine
 ring and a dicarboxylic acid. Thus, a composition contained oleic acid 9,
 polyglyceryl oleyl ether 12, diethylaminopropyl laurylamino succinate sodium
 salt 3, ethoxylated oleylamine 7, ethoxylated alkyl ether monoethanolamide 10,
 ammonium acetate 20, propylene glycol 20, dilinoleic acid 1.5, reducing agents
 0.915, sequestrants 1, resorcinol 0.085, [1-(4-aminophenyl)pyrrolidin-3-
 yl]trimethylammonium chloride 1.0, 2-methyl-5-aminophenol 0.5, perfume qs,
 ammonia 10.2, and water qs to 100 g. The above composition was mixed with 6%
 H2O2
 and applied onto hair.

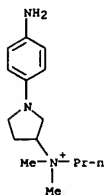
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 701975-31-7 701975-32-8 701975-33-9
 701975-34-0 701975-35-1
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing composition comprising cationic phenylenediamine with
 pyrrolidine ring and dicarboxylic acid)
 RN 435275-61-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide
 (9CI)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
(CA INDEX NAME)



● I⁻

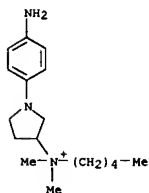
RN 435275-62-0 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, iodide
(9CI) (CA INDEX NAME)



● I⁻

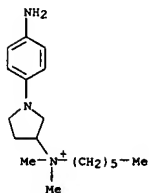
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CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide
(9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● I⁻

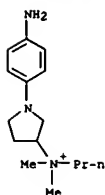
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(9CI) (CA INDEX NAME)



● I⁻

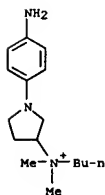
RN 435275-69-7 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-heptyl-, iodide
(9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● Br⁻

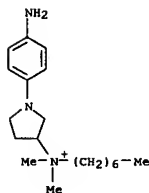
RN 435275-66-4 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-butyl-, iodide
(9CI) (CA INDEX NAME)



● I⁻

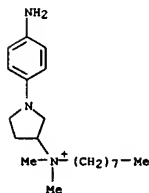
RN 435275-67-5 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-pentyl-, iodide
(9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● I⁻

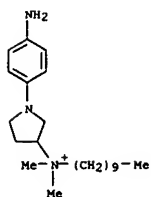
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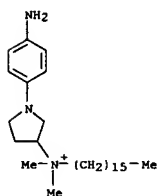
● I⁻

RN 435275-72-2 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-decyl-, iodide
(9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

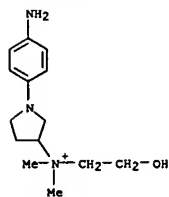
● I⁻

RN 435275-73-3 CAPLUS
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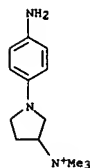
● I⁻

RN 435275-74-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

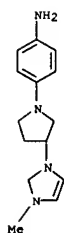
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RN 435275-82-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

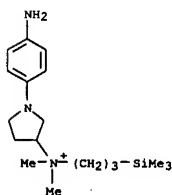
● Cl⁻

RN 607355-12-4 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

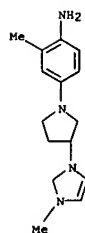
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-13-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

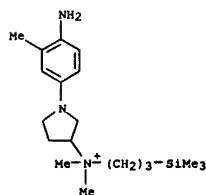
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RN 607355-16-8 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

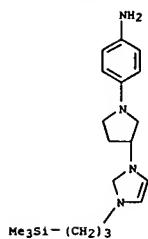
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

RN 607355-18-0 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

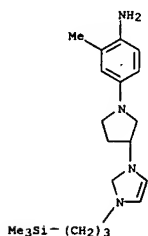
L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 607355-19-1 CAPLUS

CN 1H-imidazolium, 1-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-[[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

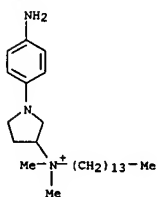
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 607355-20-4 CAPLUS

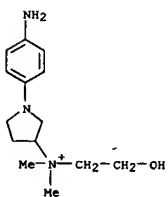
CN 1,3'-Bipyrrolidinium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Br⁻

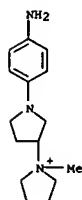
RN 701975-08-8 CAPLUS

CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

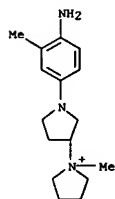
RN 701975-09-9 CAPLUS

CN 1,6-Hexanediaminium, N-[[1-(4-aminophenyl)-3-pyrrolidinyl]-N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
INDEX NAME)● Cl⁻

RN 607355-21-5 CAPLUS

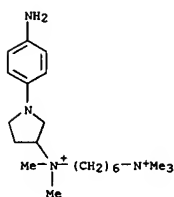
CN 1,3'-Bipyrrolidinium, 1'-(4-amino-3-methylphenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

RN 701975-01-1 CAPLUS

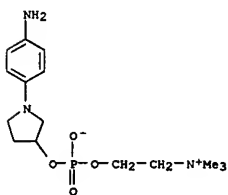
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-tetradecyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● 2 Cl⁻

RN 701975-10-2 CAPLUS

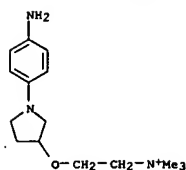
CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)



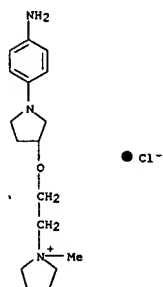
RN 701975-11-3 CAPLUS

CN Ethanaminium, 2-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

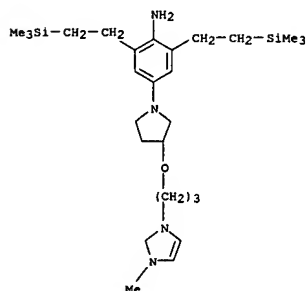
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RN 701975-12-4 CAPLUS
 CN Pyrrolidinium,
 1-[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-
 , chloride (9CI) (CA INDEX NAME)

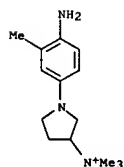
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RN 701975-13-5 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]propyl]-3-
 methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

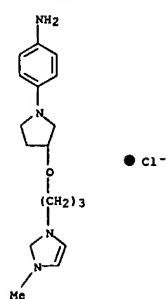
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-16-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N,N-trimethyl-,
 chloride (9CI) (CA INDEX NAME)

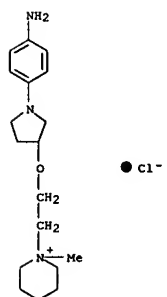
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RN 701975-17-9 CAPLUS
 CN 3-Pyrrolidinaminium,
 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-tetradecyl-
 , chloride (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

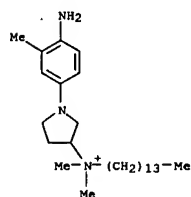
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-14-6 CAPLUS
 CN Piperidinium,
 1-[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-
 , chloride (9CI) (CA INDEX NAME)

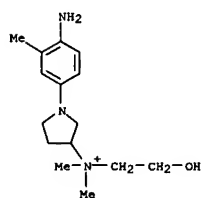
● Cl⁻

RN 701975-15-7 CAPLUS
 CN 1H-Imidazolium,
 1-[3-[[1-(4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl)-

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

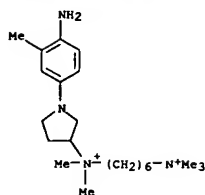
● Cl⁻

RN 701975-20-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N-(2-hydroxyethyl)-N,
 dimethyl-, chloride (9CI) (CA INDEX NAME)

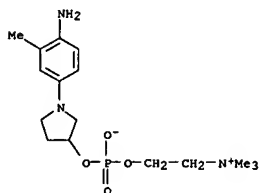
● Cl⁻

RN 701975-21-5 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-
 N,N,N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

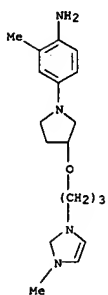
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RN 701975-22-6 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

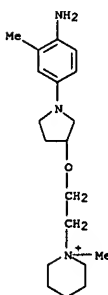


RN 701975-23-7 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

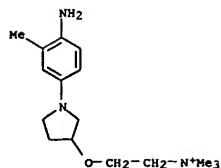
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-26-0 CAPLUS
 CN Piperidinium, 1-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

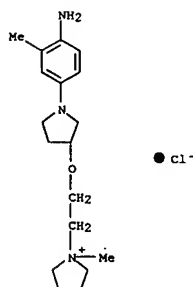
● Cl⁻

RN 701975-27-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[4-amino-3-[2-(trimethylsilyl)ethyl]phenyl]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

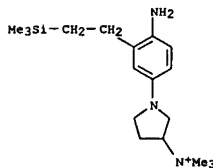
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RN 701975-24-8 CAPLUS
 CN Pyrrolidinium, 1-[2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

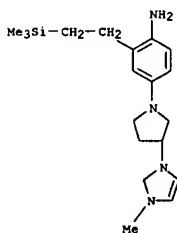
● Cl⁻

RN 701975-25-9 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

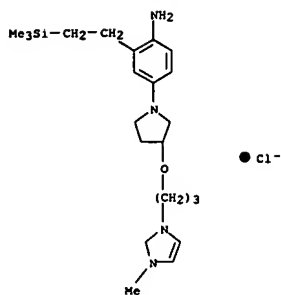
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RN 701975-28-2 CAPLUS
 CN 1H-Imidazolium, 1-[1-[4-amino-3-[2-(trimethylsilyl)ethyl]phenyl]-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

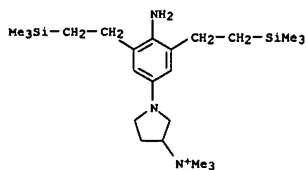
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-29-3 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[[1-(4-amino-3-[2-(trimethylsilyl)ethyl]phenyl]-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

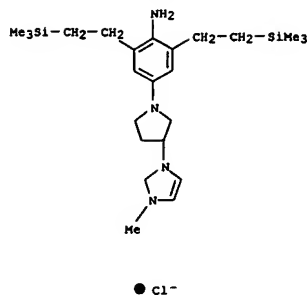


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-30-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-[4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

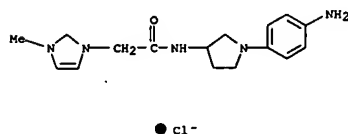


RN 701975-31-7 CAPLUS
 CN 1H-Imidazolium, 1-[1-[4-amino-3,5-bis[2-(trimethylsilyl)ethyl]phenyl]-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

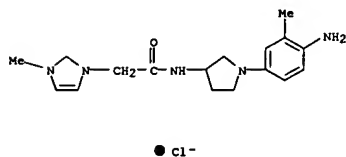


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-32-8 CAPLUS
 CN 1H-Imidazolium, 1-[2-[[1-(4-aminophenyl)-3-pyrrolidinyl]amino]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

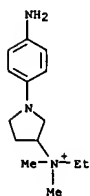


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-33-9 CAPLUS
 CN 1H-Imidazolium, 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]amino]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-34-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

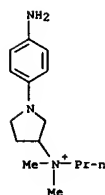


RN 701975-35-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 435275-63-1
 CMF C15 H26 N3

L4 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

CRN 21228-90-0
 CMF C H3 O4 S

Me-O-SO₃⁻

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:482161 CAPLUS
 DOCUMENT NUMBER: 141:42534
 TITLE: Hair dyeing composition comprising p-phenylenediamine with a pyrrolidine ring and a polymer
 INVENTOR(S): Cotteret, Jean; Lagrange, Alain
 PATENT ASSIGNEE(S): L'oreal, Fr.
 SOURCE: Eur. Pat. Appl., 53 pp.
 CODEN: EPXKDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

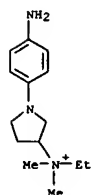
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1428506	A1	20040616	EP 2003-293131	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
FR 2848433	A1	20040618	FR 2002-15766	20021213
US 2004216246	A1	20041104	US 2003-735524	20031212
PRIORITY APPLN. INFO.:			FR 2002-15766	A 20021213
			US 2003-450338P	P 20030228

ABSTRACT:
 Hair dyeing composition comprise p-phenylenediamine with a cationic pyrrolidine ring and a polymer with fatty chains. Thus, a composition contained oleic acid 9, polyglyceryl oleyl ether 12, diethylaminopropyl laurylammonosuccinamate sodium salt 3, ethoxylated oleylamine 7, ethoxylated alkyl ether monoethanolamide 10, ammonium acetate 20, hexylene glycol 20, reducing agents 0.915, sequestrants 1, [1-(4-aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride 0.8, ACP-1234 0.2, 2-methyl-5-aminophenol 0.5, perfume qs, ammonia 10.2, and water qs to 100 g. The above composition was mixed with 6% H2O2 and applied onto hair.

IT 435275-61-9 435275-62-0 435275-65-3
 435275-66-4 435275-67-5 435275-68-6
 435275-69-7 435275-70-0 435275-72-2
 435275-73-3 435275-74-4 435275-82-4
 607355-12-4 607355-13-5 607355-16-8
 607355-17-9 607355-18-0 607355-19-1
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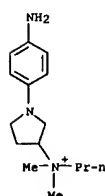
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing composition comprising phenylenediamine with pyrrolidine ring

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 and polymer)
 RN 435275-61-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)



● I⁻

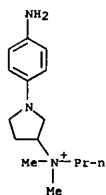
RN 435275-62-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, iodide (9CI) (CA INDEX NAME)



● I⁻

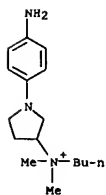
RN 435275-65-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● Br⁻

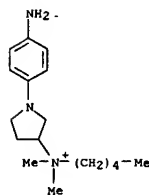
RN 435275-66-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-butyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)



● I⁻

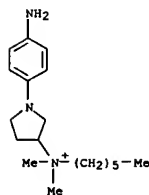
RN 435275-67-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-pentyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● I⁻

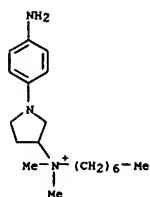
RN 435275-68-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-hexyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)



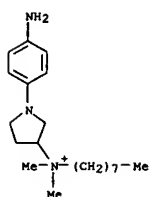
● I⁻

RN 435275-69-7 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-heptyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

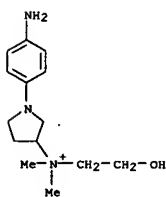
● I⁻

RN 435275-70-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-octyl-, iodide (9CI)
 (CA INDEX NAME)

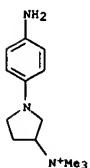
● I⁻

RN 435275-72-2 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-decyl-, iodide (9CI)
 (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

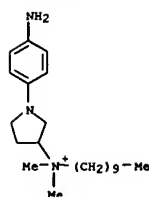
● Cl⁻

RN 435275-82-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-trimethyl-, chloride (9CI)
 (CA INDEX NAME)

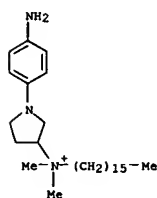
● Cl⁻

RN 607355-12-4 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI)
 (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

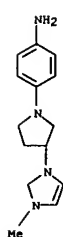
● I⁻

RN 435275-73-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-hexadecyl-, iodide (9CI)
 (CA INDEX NAME)

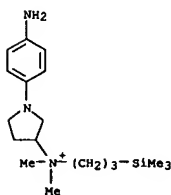
● I⁻

RN 435275-74-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-(2-hydroxyethyl)-, iodide (9CI)
 (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

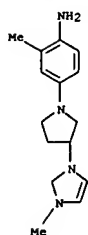
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-13-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI)
 (CA INDEX NAME)

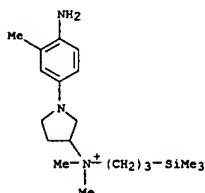
● Cl⁻

RN 607355-16-8 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI)
 (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

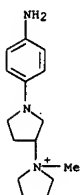
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-(3-(trimethylsilyl)propyl)-, chloride (9CI) (CA INDEX NAME)

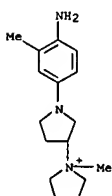
● Cl⁻

RN 607355-18-0 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued) INDEX NAME)

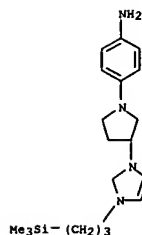
● Cl⁻

RN 607355-21-5 CAPLUS
 CN 1,3'-Bipyrrrolidininium, 1'-(4-amino-3-methylphenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

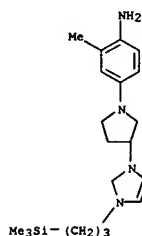
● Cl⁻

RN 701975-01-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-tetradecyl-, bromide (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

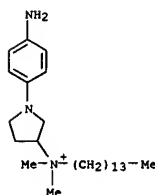
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-19-1 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

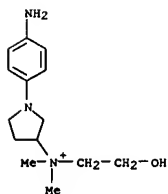
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-20-4 CAPLUS
 CN 1,3'-Bipyrrrolidininium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

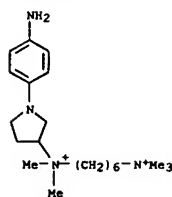
● Br⁻

RN 701975-08-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

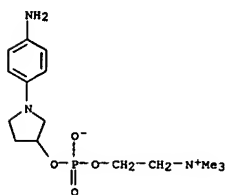
● Cl⁻

RN 701975-09-9 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-aminophenyl)-3-pyrrolidinyl]-N,N,N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

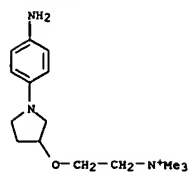
● 2 Cl⁻

RN 701975-10-2 CAPLUS
 CN Ethanaminium, 2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl
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 [oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

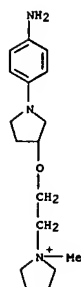


RN 701975-11-3 CAPLUS
 CN Ethanaminium, 2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-,
 chloride (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

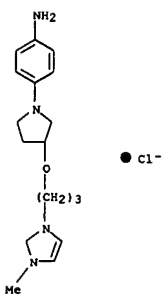
● Cl⁻

RN 701975-12-4 CAPLUS
 CN Pyrrolidinium, 1-(2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl)-1-methyl-,
 chloride (9CI) (CA INDEX NAME)

● Cl⁻

RN 701975-13-5 CAPLUS
 CN 1H-imidazolium, 1-{3-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]propyl}-3-methyl-,
 chloride (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

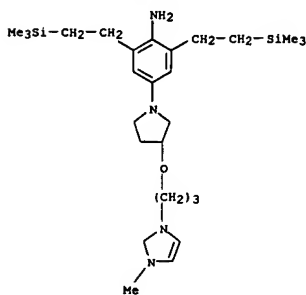
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-14-6 CAPLUS
 CN Piperidinium, 1-(2-[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]ethyl)-1-methyl-,
 chloride (9CI) (CA INDEX NAME)

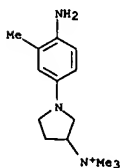
● Cl⁻

RN 701975-15-7 CAPLUS
 CN 1H-imidazolium, 1-{3-[[1-(4-amino-3,5-bis(2-(trimethylsilyl)ethyl)phenyl)-3-pyrrolidinyl]oxy]propyl}-3-methyl-,
 chloride (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

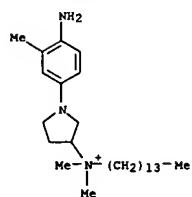
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-16-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N,N-trimethyl-,
 chloride (9CI) (CA INDEX NAME)

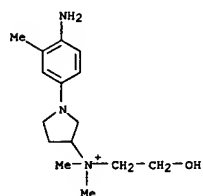
● Cl⁻

RN 701975-17-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-tetradecyl-,
 chloride (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

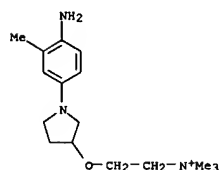
● Cl⁻

RN 701975-20-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

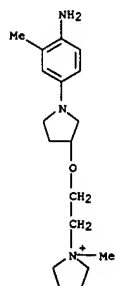
● Cl⁻

RN 701975-21-5 CAPLUS
 CN 1,6-Hexanediaminium, N-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

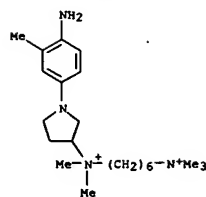
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RN 701975-24-8 CAPLUS
 CN Pyrrolidininium, 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

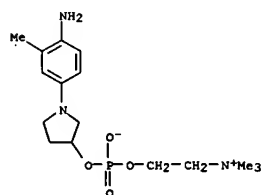
● Cl⁻

RN 701975-25-9 CAPLUS
 CN 1H-Imidazolium, 1-[3-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

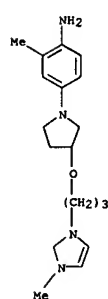
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RN 701975-22-6 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

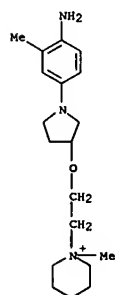


RN 701975-23-7 CAPLUS
 CN Ethanaminium, 2-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

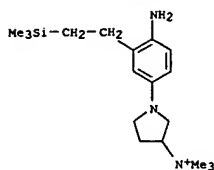
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-26-0 CAPLUS
 CN Piperidinium, 1-[2-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]ethyl]-1-methyl-, chloride (9CI) (CA INDEX NAME)

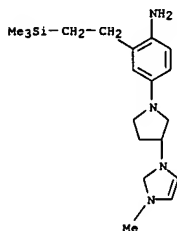
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RN 701975-27-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-amino-3-[(trimethylsilyl)ethyl]phenyl)-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

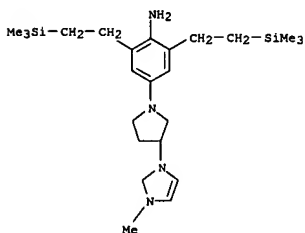
● Cl⁻

RN 701975-28-2 CAPLUS
 CN 1H-imidazolium, 1-([4-amino-3-(2-(trimethylsilyl)ethyl)phenyl]-3-pyrrolidinyl)-3-methyl-, chloride (9CI) (CA INDEX NAME)

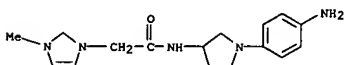
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-29-3 CAPLUS
 CN 1H-imidazolium, 1-[3-([1-[4-amino-3-(2-(trimethylsilyl)ethyl)phenyl]-3-pyrrolidinyl]oxy)propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

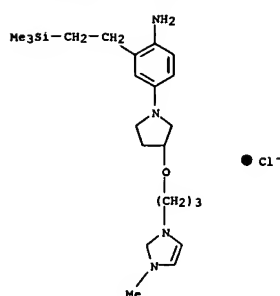
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-32-8 CAPLUS
 CN 1H-imidazolium, 1-[2-([1-(4-aminophenyl)-3-pyrrolidinyl]amino)-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

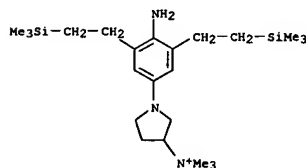
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-33-9 CAPLUS
 CN 1H-imidazolium, 1-[2-([1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]amino)-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

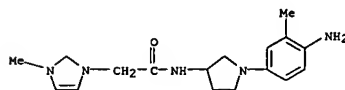
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-30-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-([4-amino-3,5-bis(2-(trimethylsilyl)ethyl)phenyl]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

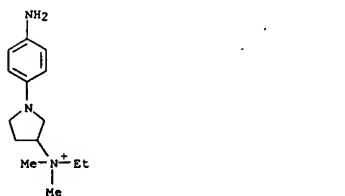
● Cl⁻

RN 701975-31-7 CAPLUS
 CN 1H-imidazolium, 1-[1-([4-amino-3,5-bis(2-(trimethylsilyl)ethyl)phenyl]-3-pyrrolidinyl)-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 701975-34-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

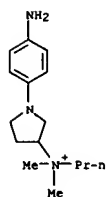
● Cl⁻

RN 701975-35-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 435275-63-1
 CMF C15 H26 N3

L4 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



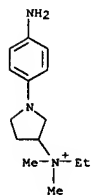
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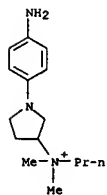
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STM (Continued)
with (hyal dyeing compns. comprising cationic tertiary phenylenediamine
pyrrolidine ring and cationic heterocyclic direct dye)
CN 435275-61-9 CAPLUS
RN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide
(9CI)
(CA INDEX NAME)



● I-

RN 435275-62-0 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, iodide
(9CI) (CA INDEX NAME)



● 1-

RN 435275-65-3 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide
(9CI) (CA INDEX NAME)

L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:482160 CAPLUS
DOCUMENT NUMBER: 141:42533
TITLE: Hair dyeing compositions comprising a cationic
tertiary p-phenylenediamine with a pyrrolidine ring
and a cationic heterocyclic direct dye
Cottaret, Jean/ Lagrange, Alain
INVENTOR(S): L'oreal, Fr.
PATENT ASSIGNEE(S): Eur. Pat. Appl., 104 pp.
SOURCE: CODEN: EPOXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1428050	A1	20040616	EP 2003-293130	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, SK, CY, CZ, EE, HU, SK, SE, EE				
FR 2684939	A1	20040618	FR 2002-15772	20021213
US 2004221399	A1	20041111	US 2003-73529	20021212
PRIORITY APPLN. INFO.:			FR 2002-15772	A 20021213
			US 2003-44641P	P 20030204

OTHER SOURCE(S): MARPAT 141:42533

ABSTRACT:

Hair dyeing compns. comprise a cationic tertiary p-phenylenediamine with a pyrrolidine ring and a cationic heterocyclic direct dye. Thus, a composition contained oleic acid 9, polyglyceryl oleyl ether 12, diethylaminopropyl laurylammoniosuccinamate sodium salt 3, ethoxylated oleylamine 7, ethoxylated alkyl ether monoethanolamide 10, ammonium acetate 20, propylene glycol 20, dilaoleic acid 1.5, reducing agents 0.915, sequestrants 1, resorcinol 0.085, [1-(4-aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride 1.0, 2-methyl-5-aminophenol 0.5, niacinamide 0.2, perfume gas, ammonia 10.2, and water qs to 100 g. The above composition (50 g) was mixed with oxygenated water and

0.2 g Basic Red-51.

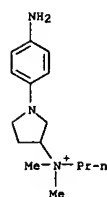
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RI: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

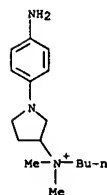
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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



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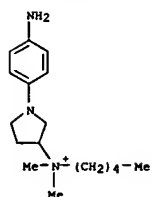
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(9CI)
(CA INDEX NAME)



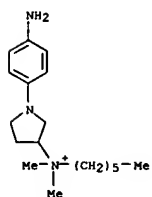
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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

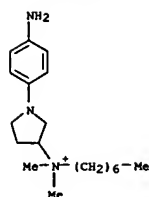
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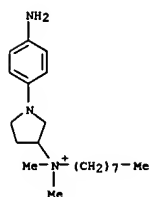
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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

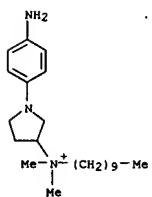
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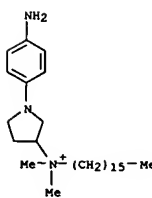
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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

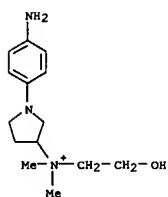
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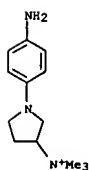
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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

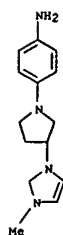
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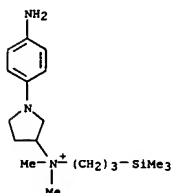
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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

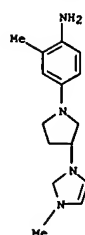
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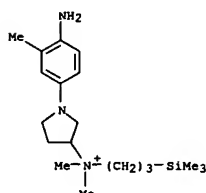
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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

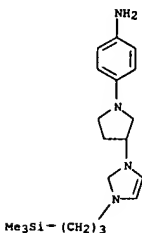
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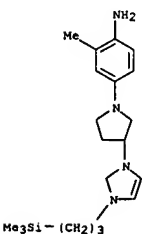
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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

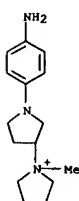
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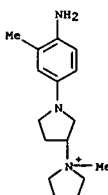
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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

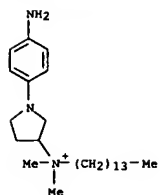
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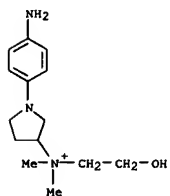
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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

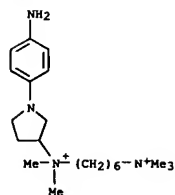
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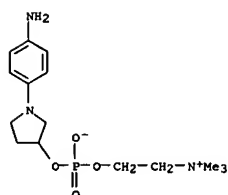
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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

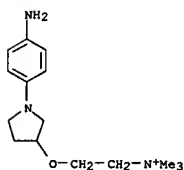
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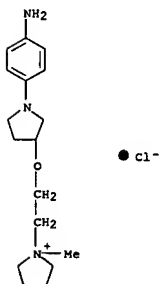


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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

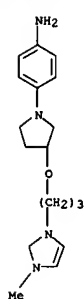
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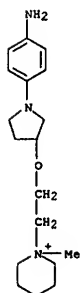
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 CN 1H-Imidazolium, 1-[3-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]propyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

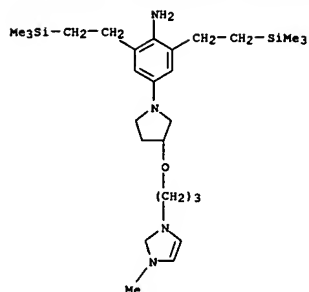
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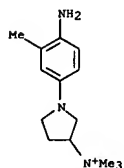
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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

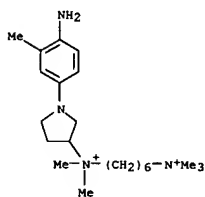


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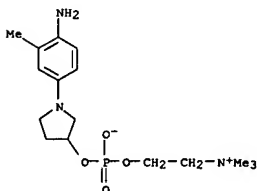
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 CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-tetradecyl-, chloride (9CI) (CA INDEX NAME)

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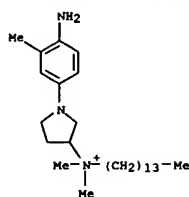
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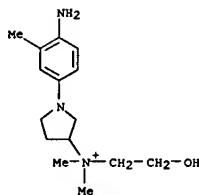


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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

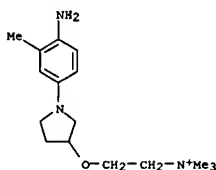
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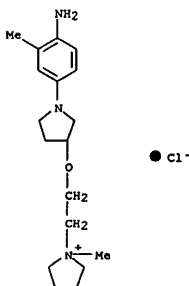
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RN 701975-21-5 CAPLUS
 CN 1,6-Hexanediaminium, N-[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-N,N,N',N',N'-pentamethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

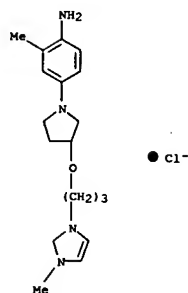
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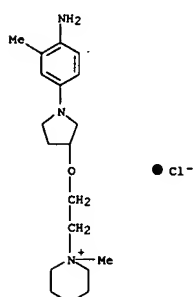
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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

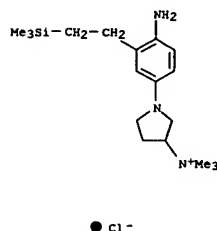


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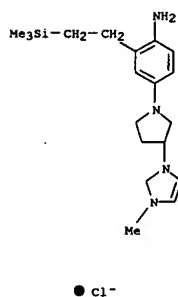


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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

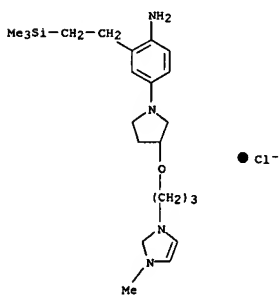


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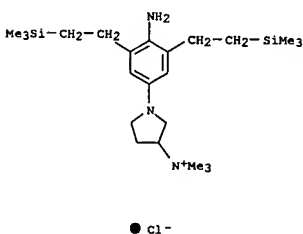


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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

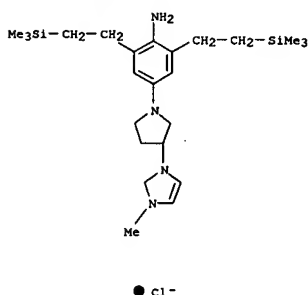


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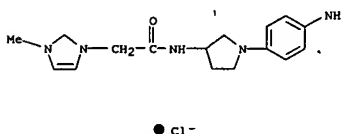


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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

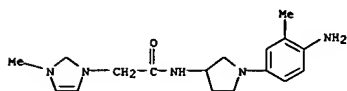


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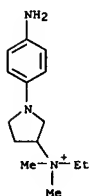


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L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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 RN 701975-34-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

RN 701975-35-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, methyl sulfate (9CI) (CA INDEX NAME)

CH 1

CRN 435275-63-1
 CMF C15 H26 N3

L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:200101 CAPLUS
 DOCUMENT NUMBER: 140:235596
 TITLE: Preparation of bis-paraphenylenediamines comprising pyrrolidine groups and their use as dyes for

keratinic

fibers
 INVENTOR(S): Sabelle, Stephane; Ramos, Laure; Leduc, Madeleine
 PATENT ASSIGNEE(S): L'Oreal, Fr.
 SOURCE: Eur. Pat. Appl., 15 pp.
 CODEN: EPXXDW

DOCUMENT TYPE: Patent
 LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1396486	A1	20040310	EP 2003-292177	20030904
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
FR 2844271	A1	20040312	FR 2002-11133	20020909
US 2004123401	A1	20040701	US 2003-657245	20030909
US 6923835	B2	20050802		
PRIORITY APPL. INFO.:			FR 2002-11133	A 20020909
			US 2002-431713P	P 20021209

OTHER SOURCE(S): MARPAT 140:235596
 GRAPHIC IMAGE:

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

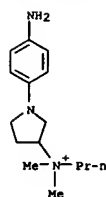
ABSTRACT:

Title compds. I [wherein n, n' = independently 0-4; when n, n' ≥ 2, R1 and R2 can be identical or different; R1, R2 = independently H, (un)substituted aliphatic, alicyclic, saturated or unsatd. hydrocarbon chain with at least one carbon replaced by one or more O, N, Si, S, SO, or SO2; R1 and R2 never include peroxide bond, diazo, NO2, or NO; A = covalent bond or (un)substituted alkylene chain with at least one carbon replaced by an ammonium radical and/or by O, S, SiN, CO, SO, SO2; R6, R7 = independently H, CO2H and derivs., alkyl/dialkyl/carbamoyl, trialkylsilane, trialkylammonium, N-alkylimidazolium, (un)substituted alkyl, R8, R9 = independently H, OH, alkoxy, monoalkyl/dialkyl/amino, thiol, CO2H and derivs., alkyl/dialkyl/carbamoyl, trialkylsilane, trialkylammonium, N-alkylimidazolium, (un)substituted alkyl] were prepared as oxidation bases for dyeing keratinous fibers, in particular human hair fibers. For example, II=Cl⁻·2HCl was prepared alkylation of [1-(4-nitrophenyl)pyrrolidin-3-yl]dimethylamine with 1,6-dibromohexane in MeOH at reflux for 6 h, followed by Pd/C hydrogenation at 10 Barr and 65°. Formulations of II in acidic medium gave blue-violet shades.

IT 667914-89-8P 667914-91-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

L4 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CH 2

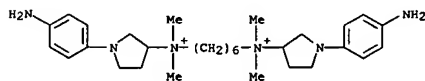
CRN 21228-90-0
 CMF C H3 O4 S

Me-O-SO₃⁻

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

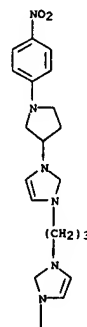
(intermediate; prepn. of bis-paraphenylenediamines comprising pyrrolidine groups as dyes for keratinic fibers)
 RN 667914-89-8 CAPLUS
 CN 1,6-Hexanediaminium, N,N,N',N'-bis[1-(4-aminophenyl)-3-pyrrolidinyl]-, dichloride, dihydrochloride (9CI) (CA INDEX NAME)

● 2 Cl⁻

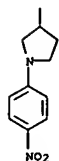
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RN 667914-91-2 CAPLUS
 CN 1H-Imidazolium, 1,1'-(1,3-propanediyl)bis[3-[1-(4-nitrophenyl)-3-pyrrolidinyl]-], dibromide, dihydrobromide (9CI) (CA INDEX NAME)

PAGE 1-A



L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
PAGE 2-A



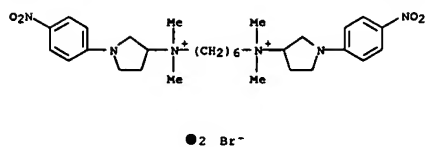
● 2 Br⁻

● 2 HBr

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

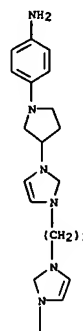
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667914-97-8P, 1,4-Bis[1-(4-aminophenyl)pyrrolidin-3-yl]-1,4-dimethylpiperazinedium dichloride 667914-99-0P
667915-01-7P, N,N'-Bis[1-(4-aminophenyl)pyrrolidin-2-yl]methyl-N,N,N',N'-tetramethylhexane-1,6-diaminium dichloride 667915-03-9P
667915-05-1P, 1,4-Bis[1-(4-aminophenyl)pyrrolidin-2-yl]methyl-1,4-dimethylpiperazinedium dichloride 667915-07-3P
667915-09-5P, N,N'-Bis[1-(4-aminophenyl)pyrrolidin-3-yl]-N,N,N',N'-tetramethylpropane-1,3-diaminium dichloride 667915-11-9P
667915-13-1P, N,N'-Bis[1-(4-aminophenyl)pyrrolidin-2-yl]methyl-N,N,N',N'-tetramethylpropane-1,3-diaminium dichloride 667915-15-3P
667915-17-5P, 1,3-Bis[3-[1-(4-aminophenyl)pyrrolidin-3-yl]aminopropyl]-1H-imidazol-3-ium chloride 667915-18-6P, N,N'-Bis[1-(4-aminophenyl)-5-(hydroxymethyl)pyrrolidin-3-yl]-N,N,N',N'-tetramethylhexane-1,6-diaminium dichloride 667915-19-7P
667915-20-0P 667915-23-3P, N,N'-Bis[1-(4-aminophenyl)-4-hydroxypyrrolidin-2-yl]methyl-N,N,N',N'-tetramethylpropane-1,3-diaminium dichloride 667915-25-5P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USE3 (Uses)
(oxidation base in dyeing; preparation of bis-paraphenylenediamines comprising pyrrolidine groups as dyes for keratinic fibers)
RN 667914-88-7 CAPLUS
CN 1,6-Hexanediaminium, N,N,N',N'-tetramethyl-N,N'-bis[1-(4-nitrophenyl)-3-pyrrolidinyl]-, dibromide (9CI) (CA INDEX NAME)

L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



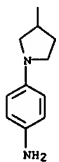
RN 667914-90-1 CAPLUS
CN 1H-Imidazolium, 1,1'-(1,3-propanediyl)bis[3-[1-(4-aminophenyl)-3-pyrrolidinyl]-, dibromide, dihydrobromide (9CI) (CA INDEX NAME)

PAGE 1-A



L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 2-A

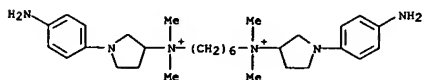


● 2 Br⁻

● 2 HBr

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 667914-94-5 CAPLUS
CN 1,6-Hexanediaminium, N,N,N',N'-bis[1-(4-aminophenyl)-3-pyrrolidinyl]-, dichloride (9CI) (CA INDEX NAME)

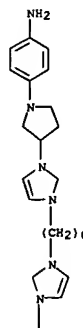


● 2 Cl⁻

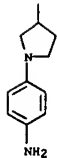
RN 667914-95-6 CAPLUS
CN 1H-Imidazolium, 1,1'-(1,6-hexanediyl)bis[3-[1-(4-aminophenyl)-3-pyrrolidinyl]-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A



PAGE 2-A



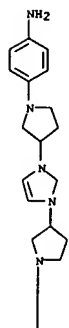
● 2 Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 667914-96-7 CAPLUS
CN 1H-Imidazolium, 1,3-bis[1-(4-aminophenyl)-3-pyrrolidinyl]-, chloride (9CI) (CA INDEX NAME)

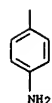
L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

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PAGE 1-A



PAGE 2-A

● 2 Cl⁻

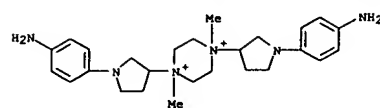
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RN 667914-97-8 CAPLUS

CN Piperazinium, 1,4-bis[1-(4-aminophenyl)-3-pyrrolidinyl]-1,4-dimethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

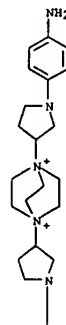
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● 2 Cl⁻

RN 667914-99-0 CAPLUS

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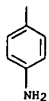
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L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

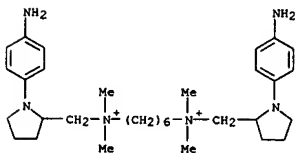
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PAGE 2-A

● 2 Cl⁻

RN 667915-01-7 CAPLUS

CN 1,6-Hexanediaminium, N,N'-bis[1-(4-aminophenyl)-2-pyrrolidinylmethyl]-N,N,N',N'-tetramethyl-, dichloride (9CI) (CA INDEX NAME)

● 2 Cl⁻

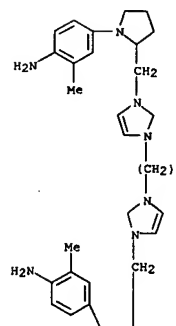
RN 667915-03-9 CAPLUS

CN 1H-Imidazolium, 1,1'-bis[1,6-hexanediyl]bis[3-[[1-(4-amino-3-methylphenyl)-2-pyrrolidinyl]methyl]-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

(Continued)

PAGE 1-A



PAGE 2-A

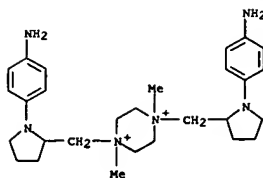
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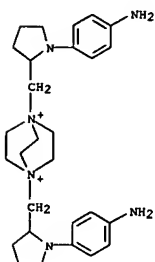
RN 667915-05-1 CAPLUS

CN Piperazinium, 1,4-bis[1-(4-aminophenyl)-2-pyrrolidinylmethyl]-1,4-dimethyl-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● 2 Cl⁻

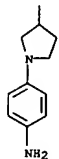
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 CN 1,4-Diazoniabicyclo[2.2.2]octane, 1,4-bis[[1-(4-aminophenyl)-2-pyrrolidinyl]methyl]-, dichloride (9CI) (CA INDEX NAME)

● 2 Cl⁻

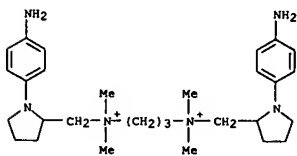
RN 667915-09-5 CAPLUS
 CN 1,3-Propanediaminium, N,N'-bis[[1-(4-aminophenyl)-3-pyrrolidinyl]-N,N,N',N'-tetramethyl]-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 2-A

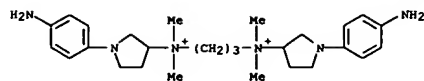
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● 2 Cl⁻

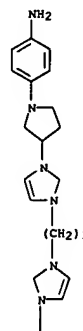
RN 667915-15-3 CAPLUS
 CN 1H-Imidazolium, 1,1'-(1,3-propanediyl)bis[3-[[1-(4-aminophenyl)-2-pyrrolidinyl]methyl]-, dichloride (9CI) (CA INDEX NAME)

L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● 2 Cl⁻

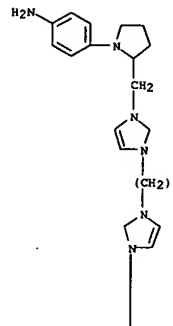
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 CN 1H-Imidazolium, 1,1'-(1,3-propanediyl)bis[3-[[1-(4-aminophenyl)-3-pyrrolidinyl]-, dichloride (9CI) (CA INDEX NAME)

PAGE 1-A

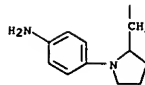


L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A



PAGE 2-A

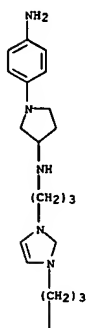
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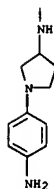
L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

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PAGE 1-A



PAGE 2-A

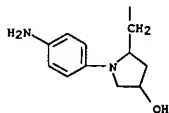
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 667915-18-6 CAPLUS
 CN 1,6-Hexanediaminium, N,N'-bis[1-(4-aminophenyl)-5-(hydroxymethyl)-3-pyrrolidinyl]-N,N,N',N'-tetramethyl-, dichloride (9CI) (CA INDEX NAME)

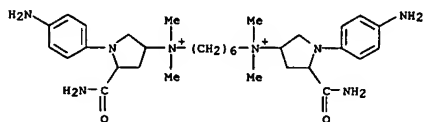
L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

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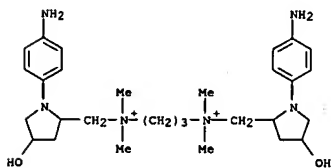
PAGE 2-A



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 667915-20-0 CAPLUS
 CN 1,6-Hexanediaminium, N,N'-bis[5-(aminocarbonyl)-1-(4-aminophenyl)-3-pyrrolidinyl]-N,N,N',N'-tetramethyl-, dichloride (9CI) (CA INDEX NAME)

● 2 Cl⁻

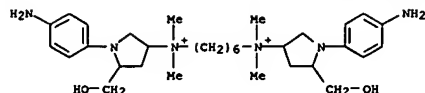
RN 667915-23-3 CAPLUS
 CN 1,3-Propanediaminium, N,N'-bis[1-(4-aminophenyl)-4-hydroxy-2-pyrrolidinylmethyl]-N,N,N',N'-tetramethyl-, dichloride (9CI) (CA INDEX NAME)

● 2 Cl⁻

RN 667915-25-5 CAPLUS
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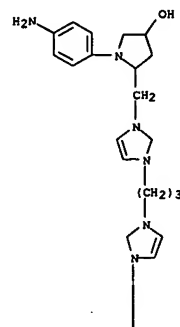
L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

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● 2 Cl⁻

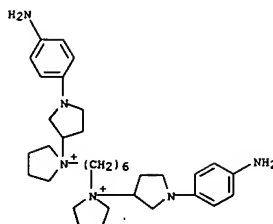
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 CN 1H-Imidazolium, 1,1'-(1,3-propanediyl)bis[3-([1-(4-aminophenyl)-4-hydroxy-2-pyrrolidinylmethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



L4 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

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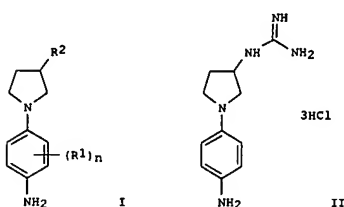
● 2 Cl⁻

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:771366 CAPLUS
 DOCUMENT NUMBER: 139:276814
 TITLE: Preparation of aminophenylpyrrolidines as dyes for keratinic fibers
 INVENTOR(S): Sabelle, Stephane; Ramos, Laure; Leduc, Madeleine; Philippe, Michel
 PATENT ASSIGNEE(S): L'Oreal, Fr.
 SOURCE: Eur. Pat. Appl., 4 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1348695	A1	20031001	EP 2003-290597	20030311
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
FR 2837821	A1	20031003	FR 2002-3847	20020327
FR 2837821	B1	20050311		
JP 2003286256	A2	20031010	JP 2003-89390	20030327
US 2003229949	A1	20031218	US 2003-397245	20030327
US 2004194227	A9	20041007		
US 6946005	B2	20050920		
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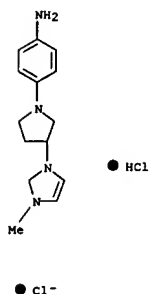
OTHER SOURCE(S): MARPAT 139:276814
 GRAPHIC IMAGE:



ABSTRACT:
 Aminophenylpyrrolidines I [R₁ = halogen, (un)substituted alkyl, onium: n = 0-4; R₂ = quaternary ammonium] were prepared for use as hair dyes. Thus, 4-FC6H₄NO₂ was treated with 3-acetylaminopyrrolidine, followed by deacetylation,

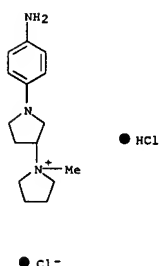
L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 conversion to guanidine, and redn. to give the dye II, which gave blue-violet shades in alk. medium.

IT 607354-86-9P 607354-93-8P 607354-98-3P
 607355-02-2P 607355-05-5P 607355-09-9P
 607355-12-4P 607355-13-5P 607355-16-8P
 607355-17-9P 607355-18-0P 607355-19-1P
 607355-20-4P 607355-21-5P 607355-22-6P
 607355-23-7P 607355-24-8P 607355-25-9P
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of aminophenylpyrrolidines as dyes for keratinic fibers)
 RN 607354-86-9 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride, monohydrochloride (9CI) (CA INDEX NAME)

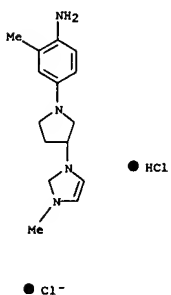


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607354-93-8 CAPLUS
 CN 1,3'-Bipyrrolidinium, 1'-(4-aminophenyl)-1-methyl-, chloride, monohydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 607354-98-3 CAPLUS
 CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride, monohydrochloride (9CI) (CA INDEX NAME)

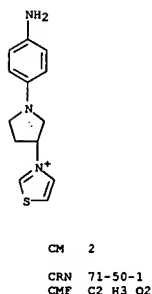


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-02-2 CAPLUS
 CN Thiazolium, 3-[1-(4-aminophenyl)-3-pyrrolidinyl]-, acetate (9CI) (CA INDEX NAME)

CH 1

CRN 607355-01-1
 CMF C13 H16 N3 S

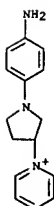
L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 607355-05-5 CAPLUS
 CN Pyridinium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-, acetate (9CI) (CA INDEX NAME)

CH 1

CRN 607355-04-4
 CMF C15 H18 N3



CH 2

CRN 71-50-1

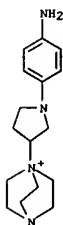
L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CMF C2 H3 O2



RN 607355-09-9 CAPLUS
CN 4-Aza-1-azoniabicyclo[2.2.2]octane,
1-[1-(4-aminophenyl)-3-pyrrolidinyl]-,
methanesulfonate, monohydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 607355-08-8
CMF C16 H25 N4



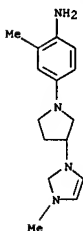
CM 2

CRN 16053-58-0
CMF C H3 O3 S



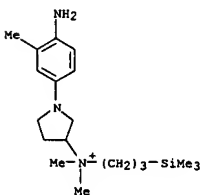
RN 607355-12-4 CAPLUS
CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● Cl⁻

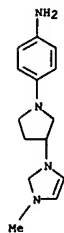
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 607355-17-9 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-amino-3-methylphenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

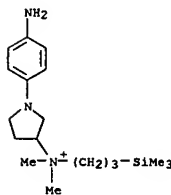
RN 607355-18-0 CAPLUS
CN 1H-Imidazolium, 1-[1-(4-aminophenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● Cl⁻

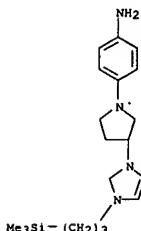
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 607355-13-5 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

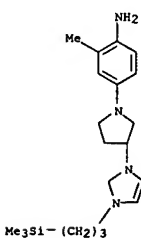
RN 607355-16-8 CAPLUS
CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● Cl⁻

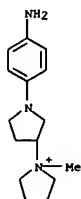
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 607355-19-1 CAPLUS
CN 1H-Imidazolium, 1-[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]-3-[3-(trimethylsilyl)propyl]-, chloride (9CI) (CA INDEX NAME)



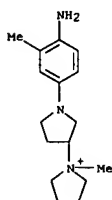
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 607355-20-4 CAPLUS
CN 1,3'-Bipyrrrolidinium, 1'-(4-aminophenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

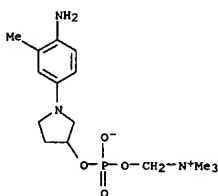
● Cl⁻

RN 607355-21-5 CAPLUS
 CN 1,3'-Bipyrrolidinium, 1'-[(4-amino-3-methylphenyl)-1-methyl-, chloride (9CI) (CA INDEX NAME)

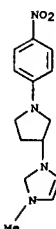
● Cl⁻

RN 607355-22-6 CAPLUS
 CN 1H-Imidazolium, 1-[[[1-(4-aminophenyl)-3-pyrrolidinyl]carbonyl]amino]methyl-3-methyl-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 CN Methanaminium, 1-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyloxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)



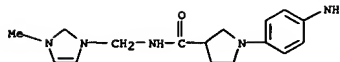
IT 607354-84-7P 607354-85-8P 607354-91-6P
 607354-92-7P 607354-96-1P 607354-97-2P
 607355-00-0P 607355-03-3P 607355-07-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of aminophenylpyrrolidines as dyes for keratinic fibers)
 RN 607354-84-7 CAPLUS
 CN 1H-Imidazolium, 1-methyl-3-[1-(4-nitrophenyl)-3-pyrrolidinyl]-, methanesulfonate (9CI) (CA INDEX NAME)
 CM 1
 CRN 607354-83-6
 CMF C14 H17 N4 O2



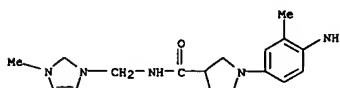
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

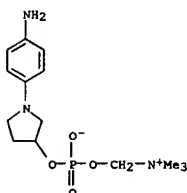
L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-23-7 CAPLUS
 CN 1H-Imidazolium, 1-[[[1-(4-amino-3-methylphenyl)-3-pyrrolidinyl]carbonyl]amino]methyl-3-methyl-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607355-24-8 CAPLUS
 CN Methanaminium, 1-[[[1-(4-aminophenyl)-3-pyrrolidinyl]oxy]hydroxyphosphinyloxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)



RN 607355-25-9 CAPLUS

L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 CRN 16053-58-0
 CMF C H3 O3 S



RN 607354-85-8 CAPLUS
 CN 1H-Imidazolium, 1-methyl-3-[1-(4-nitrophenyl)-3-pyrrolidinyl]-, chloride, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

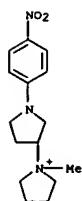
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 RN 607354-91-6 CAPLUS
 CN 1,3'-Bipyrrolidinium, 1-methyl-1'-(4-nitrophenyl)-, methanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 607354-90-5
 CMF C15 H22 N3 O2

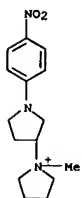
L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



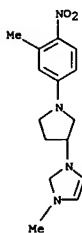
CM 2

CRN 16053-58-0
CMF C H3 O3 S

RN 607354-92-7 CAPLUS
CN 1,3'-Bipyrrolidinium, 1-methyl-1'-(4-nitrophenyl)-, chloride (9CI) (CA INDEX NAME)

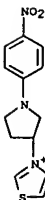
● Cl⁻

L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 607355-00-0 CAPLUS
CN Thiazolium, 3-[1-(4-nitrophenyl)-3-pyrrolidinylium]-, methanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 607354-99-4
CMF C13 H14 N3 O2 S

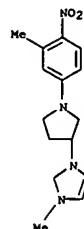
CM 2

CRN 16053-58-0
CMF C H3 O3 S

L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 607354-96-1 CAPLUS
CN 1H-Imidazolium, 1-methyl-3-[1-(3-methyl-4-nitrophenyl)-3-pyrrolidinylium]-, methanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 607354-95-0
CMF C15 H19 N4 O2

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

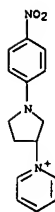
CRN 16053-58-0
CMF C H3 O3 S

RN 607354-97-2 CAPLUS
CN 1H-Imidazolium, 1-methyl-3-[1-(3-methyl-4-nitrophenyl)-3-pyrrolidinylium]-, chloride (9CI) (CA INDEX NAME)

L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 607355-03-3 CAPLUS
CN Pyridinium, 1-[1-(4-nitrophenyl)-3-pyrrolidinylium]-, chloride (9CI) (CA INDEX NAME)

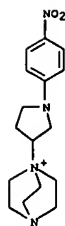
● Cl⁻

RN 607355-07-7 CAPLUS
CN 4-Aza-1-azoniabicyclo[2.2.2]octane, 1-[1-(4-nitrophenyl)-3-pyrrolidinylium]-, methanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 607355-06-6
CMF C16 H23 N4 O2

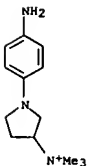
L4 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

CRN 16053-58-0
CMF C H3 O3 SREFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE REL4 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
compn. contained the primary intermediate and the coupler (0.025 M each) in a
base consisting of cocamidopropylbetaine 17 g, monoethanol amine 2 g, oleic
acid 0.75 g, citric acid 0.1 g, ammonium hydroxide (28%) 5 g, behentrimonium
chloride 0.5 g and water to 100 g.IT 466651-65-0P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
study); PREP (Preparation); USES (Uses)
oxidative hair coloring systems containing quaternized pyrrolidine
comps.
as primary intermediates)
RN 466651-65-0 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, methyl sulfate
(9CI) (CA INDEX NAME)

CM 1

CRN 435275-83-5
CMF C13 H22 N3

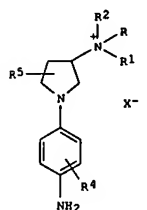
CM 2

CRN 21228-90-0
CMF C H3 O4 S

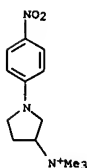
Me-O-SO3-

IT 435275-76-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of quaternized pyrrolidine comps. as primary
intermediates for
oxidative hair)
RN 435275-76-6 CAPLUS
CN 3-Pyrrolidinaminium, N,N,N-trimethyl-1-(4-nitrophenyl)-, iodide (9CI)
(CA
INDEX NAME)L4 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:768546 CAPLUS
DOCUMENT NUMBER: 137:283939
TITLE: Quaternized pyrrolidines as primary intermediates for
oxidative coloration of hair
INVENTOR(S): Lim, Mu-Il; Pan, Yuh-Guo
PATENT ASSIGNEE(S): Clairol Incorporated, USA
SOURCE: U.S., 72 pp., Cont.-in-part of U.S. Ser. No. 874,080,
abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

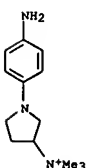
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6461391	B1	20021008	US 2001-11804	20011205
US 2002106341	A1	20020808	US 2000-730707	20001206
US 6521761	B2	20030218		
PRIORITY APPLN. INFO.:			US 2000-730707	A2 20001206
			US 2001-874080	B2 20010606

OTHER SOURCE(S): MARPAT 137:283939
GRAPHIC IMAGE:ABSTRACT:
Primary intermediates useful in hair coloring systems comprise quaternized
pyrrolidine comps. (I; R,R3 = C1-22 alkyl or hydroxyalkyl; R1,R2 = C1-4
alkyl;
R4 = H, C1-5 alkyl or alkyl substituted with hydroxy or amino moieties; R5 =
H,
OH; X = Cl, Br, I, R3SO4). For example, [1-(4-nitrophenyl)pyrrolidin-3-
yl]dimethylamine (470 mg) reacted with Me iodide (567 mg) to give
1-(4-nitrophenyl)-N,N,N-trimethylpyrrolidin-3-aminium iodide (894 mg, 92%
yield), which was then hydrogenated to produce 1-(4-aminophenyl)-N,N,N-
trimethylpyrrolidin-3-aminium iodide (505 mg, 95% yield). A hair coloring

L4 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



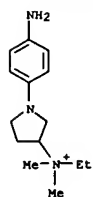
● I-

IT 435275-60-8P 435275-61-9P 435275-62-0P
435275-64-2P 435275-65-3P 435275-66-4P
435275-67-5P 435275-68-6P 435275-69-7P
435275-70-0P 435275-71-1P 435275-72-2P
435275-73-3P 435275-74-4P 435275-75-5P
435275-82-4P 466651-63-8P 466651-64-9P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
study); PREP (Preparation); USES (Uses)
(preparation of quaternized pyrrolidine comps. as primary
intermediates for
oxidative hair coloration)
RN 435275-60-8 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, iodide (9CI)
(CA
INDEX NAME)

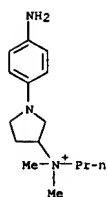
● I-

RN 435275-61-9 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide
(9CI)
(CA INDEX NAME)

L4 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● I⁻

RN 435275-62-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, iodide
 (9CI) (CA INDEX NAME)

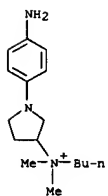
● I⁻

RN 435275-64-2 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, propyl
 sulfate (9CI) (CA INDEX NAME)

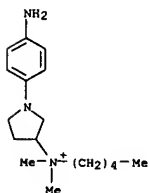
CM 1

CRN 435275-63-1
 CMF C15 H26 N3

L4 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

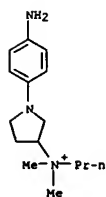
● I⁻

RN 435275-67-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-pentyl-, iodide
 (9CI) (CA INDEX NAME)

● I⁻

RN 435275-68-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-hexyl-, iodide
 (9CI) (CA INDEX NAME)

L4 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

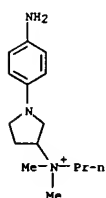


CM 2

CRN 72640-73-4
 CMF C3 H7 O4 S

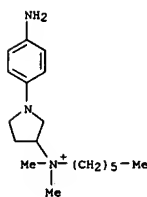
n-Pr⁺ O⁻ SO₃⁻

RN 435275-65-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide
 (9CI) (CA INDEX NAME)

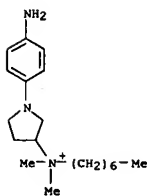
● Br⁻

RN 435275-66-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-butyl-, iodide
 (9CI) (CA INDEX NAME)

L4 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

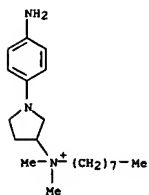
● I⁻

RN 435275-69-7 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-heptyl-, iodide
 (9CI) (CA INDEX NAME)

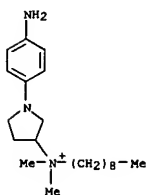
● I⁻

RN 435275-70-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-octyl-, iodide
 (9CI) (CA INDEX NAME)

L4 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

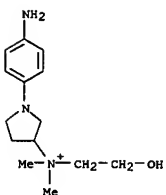
● I⁻

RN 435275-71-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-nonyl-, iodide (9CI)
 (CA INDEX NAME)

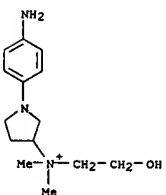
● I⁻

RN 435275-72-2 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

L4 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

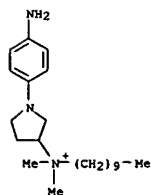
● I⁻

RN 435275-75-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-, bromide (9CI)
 (CA INDEX NAME)

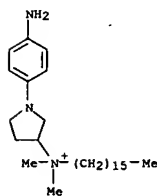
● Br⁻

RN 435275-82-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, chloride (9CI)
 (CA INDEX NAME)

L4 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

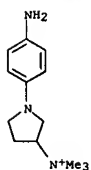
● I⁻

RN 435275-73-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

● I⁻

RN 435275-74-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)

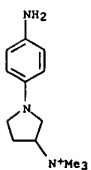
L4 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Cl⁻

RN 466651-63-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, sulfate (1:1)
 (9CI) (CA INDEX NAME)

CM 1

CRN 435275-83-5
 CMF C13 H22 N3



CM 2

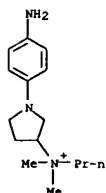
CRN 14996-02-2
 CMF H O4 S



RN 466651-64-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, sulfate (1:1)
 (9CI) (CA INDEX NAME)

L4 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CM 1

CRN 435275-63-1
CMF C15 H26 N3

CM 2

CRN 14996-02-2
CMF H O4 S

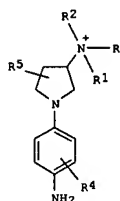
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L4 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:449467 CAPLUS
DOCUMENT NUMBER: 137:37379
TITLE: Primary intermediates for oxidative coloration of hair
INVENTOR(S): Lim, Mu-Il; Pan, Yuh-Guo
PATENT ASSIGNEE(S): Clairol Incorporated, USA
SOURCE: PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002045675	A1	20020613	WO 2001-US47532	20011205
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002106341	A1	20020808	US 2000-730707	20001206
US 6521761	B2	20030218		
CA 2428091	AA	20020613	CA 2001-2428091	20011205
AU 2002027330	A5	20020618	AU 2002-27330	20011205
EP 1414392	A1	20040506	EP 2001-996192	20011205
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 2004514729	T2	20040520	JP 2002-547461	20011205
PRIORITY APPLN. INFO.:			US 2000-730707	A 20001206
			US 2001-874080	A 20010606
			WO 2001-US47532	W 20011205

OTHER SOURCE(S): MARPAT 137:37379
GRAPHIC IMAGE:

L4 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



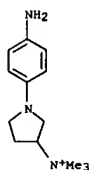
X-

I

ABSTRACT:
Primary intermediates useful hair coloring systems comprise quaternized pyrrolidine compds. The invention provides new quaternized pyrrolidine of formula (I): wherein X is Cl, Br, I, or R3SO4; R is a Cl to C22 alkyl group or a Cl to C22 mono or dihydroxyalkyl group; R1 and R2 are each independently a Cl to C4 alkyl group; R3 is a Cl to C22 alkyl group or a Cl to C22 mono or dihydroxyalkyl group; R4 is a hydrogen atom, a Cl to C5 alkyl group or such an alkyl group substituted with one or more hydroxy or amino moieties; and R5 is a hydrogen atom or a hydroxy group. Thus, 1-(4-aminophenyl)-N,N,N-trimethylpyrrolidin-3-aminium iodide (II) was prepared by the reaction of [1-(4-nitrophenyl)-pyrrolidin-3-yl]dimethylamine with Me iodide and hydrogenation of the resulting 1-(4-nitrophenyl)-N,N,N-trimethylpyrrolidin-3-aminium iodide. The color produced by combination of II with various couplers such as resorcinol, m-aminophenol, 5-aminophenol, and 2,4-diaminophenoxyethanol is reported.

IT 435275-02-4 435275-04-6
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(primary intermediates for oxidative coloration of hair)
RN 435275-02-4 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, chloride (9CI)
(CA INDEX NAME)

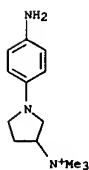
L4 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● Cl-

RN 435275-04-6 CAPLUS
CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, sulfite (1:1)
(9CI) (CA INDEX NAME)

CM 1

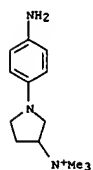
CRN 435275-83-5
CMF C13 H22 N3

CM 2

CRN 15181-46-1
CMF H O3 S

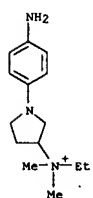
IT 435275-60-0P 435275-61-0P 435275-62-0P
435275-64-2P 435275-65-3P 435275-66-4P
435275-67-5P 435275-68-6P 435275-69-7P
435275-70-0P 435275-71-1P 435275-72-2P
435275-73-3P 435275-74-4P 435275-75-5P

L4 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (primary intermediates for oxidative coloration of hair)
 RN 435275-60-8 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N,N-trimethyl-, iodide (9CI)
 (CA INDEX NAME)



● I⁻

RN 435275-61-9 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-ethyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)



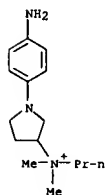
● I⁻

RN 435275-62-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

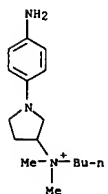
n-Pr-O-SO₃⁻

RN 435275-65-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, bromide (9CI) (CA INDEX NAME)



● Br⁻

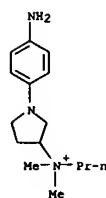
RN 435275-66-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-butyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)



● I⁻

RN 435275-67-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-pentyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

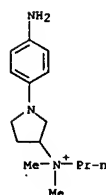


● I⁻

RN 435275-64-2 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-propyl-, propyl sulfate (9CI) (CA INDEX NAME)

CM 1

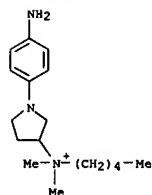
CRN 435275-63-1
 CMP C15 H26 N3



CM 2

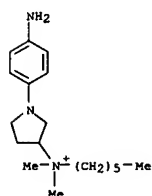
CRN 72640-73-4
 CMP C3 H7 O4 S

L4 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● I⁻

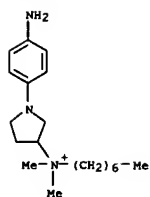
RN 435275-68-6 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-hexyl-N,N-dimethyl-, iodide (9CI)
 (CA INDEX NAME)



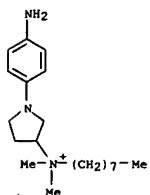
● I⁻

RN 435275-69-7 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-heptyl-N,N-dimethyl-, iodide (9CI) (CA INDEX NAME)

L4 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

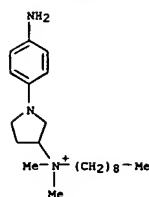
● I⁻

RN 435275-70-0 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-octyl-, iodide
 (9CI) (CA INDEX NAME)

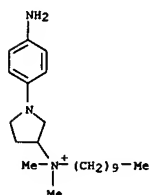
● I⁻

RN 435275-71-1 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N,N-dimethyl-N-nonyl-, iodide
 (9CI) (CA INDEX NAME)

L4 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

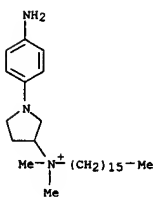
● I⁻

RN 435275-72-2 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-decyl-N,N-dimethyl-, iodide
 (9CI) (CA INDEX NAME)

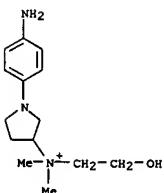
● I⁻

RN 435275-73-3 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-hexadecyl-N,N-dimethyl-, iodide
 (9CI) (CA INDEX NAME)

L4 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

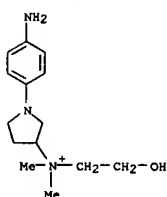
● I⁻

RN 435275-74-4 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-,
 iodide (9CI) (CA INDEX NAME)

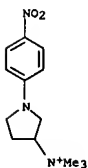
● I⁻

RN 435275-75-5 CAPLUS
 CN 3-Pyrrolidinaminium, 1-(4-aminophenyl)-N-(2-hydroxyethyl)-N,N-dimethyl-,
 bromide (9CI) (CA INDEX NAME)

L4 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● Br⁻

IT 435275-76-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (primary intermediates for oxidative coloration of hair)
 RN 435275-76-6 CAPLUS
 CN 3-Pyrrolidinaminium, N,N,N-trimethyl-1-(4-nitrophenyl)-, iodide (9CI)
 (CA INDEX NAME)

● I⁻

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

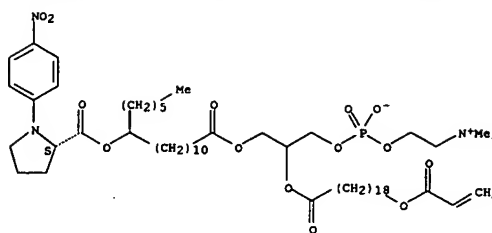
L4 ANSWER 22 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1987:449563 CAPLUS
 DOCUMENT NUMBER: 107:49563
 TITLE: Nonlinear optical element materials and formation of patterns
 INVENTOR(S): Kurihara, Takashi; Fujiki, Michiya; Ebisawa, Fumihiro;
 PATENT ASSIGNEE(S): Tabei, Hisao
 SOURCE: Nippon Telegraph and Telephone Public Corp., Japan
 Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JYKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61210332	A2	19860918	JP 1985-50339	19850315
PRIORITY APPLN. INFO.:			JP 1985-50339	19850315

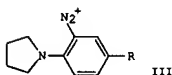
ABSTRACT:
 The materials are amphipathic compds. consisting of hydrophobic residues containing monomer units, hydrophobic residues containing nonlinear optical substances, and hydrophilic residues. The compns. have high sensitivity to high energy radiation and are patterned in short times. Thus, Br-N+Me2[p-(CH2)8NMeC6H4CH:CHC6H4NO2-p](CH2)8C:CC(CH2)11Me was prepared

IT 109134-27-2P
 RL: PREP (Preparation)
 (nonlinear optical, manufacture and patterning of)
 RN 109134-27-2 CAPLUS
 CN L-Proline, 1-(4-nitrophenyl)-, 1-hexyl-18-hydroxy-22,22-dimethyl-18-oxido-
 12-oxo-15-[[1-oxo-19-[(1-oxo-2-propenyl)oxy]nonadecyl]oxy]-13,17,19-trioxo-22-azonia-18-phosphatricos-1-yl ester, inner salt (9CI) (CA INDEX NAME)
 Absolute stereochemistry.

L4 ANSWER 22 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L4 ANSWER 23 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1987:195750 CAPLUS
 DOCUMENT NUMBER: 106:195750
 TITLE: Thermolysis of aryldiazonium salts in polymer matrix.
 AUTHOR(S): Watzke, R.; Marx, J.; Boettcher, H.
 CORPORATE SOURCE: VEB Fotochem. Komb. Wolfen, Wolfen, Ger. Dem. Rep.
 SOURCE: Journal fuer Praktische Chemie (Leipzig) (1986), 328(4), 621-6
 CODEN: JPCEAO; ISSN: 0021-8383
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 GRAPHIC IMAGE:



ABSTRACT:
 A comparison of the thermolysis kinetics of 4,2,5-R(O2N)(MeO)C6H2N2+ (R = pyrrolidino, piperidino), 3,5,4-R2(Me2N)C6H2N2+ (R = H, halo), 2-RC6H4N2+ (I; R = Me2N, pyrrolidino, piperidino, morpholino), 4-RC6H4N2+ (II; R = Me2N, pyrrolidino, piperidino, morpholino), and the 5-substituted 2-pyrrolidinobenzenediazonium salts (III; R = MeO, Cl, Br, CO2Et, -CN, NO2, Me) at 70°, in a polymer matrix of Cellit F, and at 90°, in 0.1N HCl, showed that the diazonium salts were stabilized by incorporation into the polymer matrix. I were approx. 20 times more reactive than II. Only III showed a good LFER with σ_m ($\rho = 2.42$); III also had an LFER with $E_1/2$ and a curved LFER with the electronic excitation energy. The drastic decreases in the stability of the diazonium salts caused by m-halo substituents and the other electronic effects on the stability of the diazonium salts were discussed.

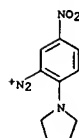
IT 108133-51-3
 RL: PRP (Properties)
 (UV and thermolysis of, kinetics of)
 RN 108133-51-3 CAPLUS
 CN Benzenediazonium, 5-nitro-2-(1-pyrrolidinyl)-, tetrafluoroborate(1-)
 (9CI)

(CA INDEX NAME)

CM 1

CRN 108133-50-2
 CMF C10 H11 N4 O2

L4 ANSWER 23 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

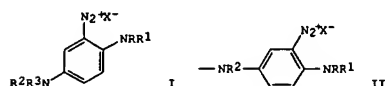
CRN 14874-70-5
 CMF B F4
 CCI CCS



L4 ANSWER 24 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1986:139364 CAPLUS
 DOCUMENT NUMBER: 104:139364
 TITLE: Diazo material
 INVENTOR(S): Mark, Joerg; Watzke, Roland
 PATENT ASSIGNEE(S): VEB Filmfabrik Wolfen, Fotochemisches Kombinat, Ger.
 SOURCE: Dem. Rep.
 Ger. (East), 10 pp.
 CODEN: GEXXAS
 Patent
 German
 DOCUMENT TYPE:
 LANGUAGE:
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 224419	A1	19850703	DD 1984-261728	19840406
PRIORITY APPLN. INFO.:			DD 1984-261728	19840406

GRAPHIC IMAGE:

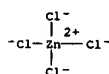


ABSTRACT:

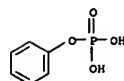
A blue light-sensitive diazo material with a high coupling activity and thermal stability as well as less fog formation consists of an underlayer, ≥ 1 diazonium salt of the formula I (R, R1 = Cl-6 alkyl, C7-10 aralkyl, or together form a heterocycle that may addnl. contain O, S, or N; R2 = H, Cl-8 alkyl; R3 = COR4, P(O)R5R6, SO2R7 where R4 = Cl-6 alkyl, or C7-10 aralkyl, Cl-4 haloalkyl or Cl-6 alkoxy, R5 = Cl-6 alkoxy, aryloxy, halo, R6 = H, halo, OH, Cl-18 alkoxy, NH2, NRR1, PhR2N, or II; R7 = aryl; X- = an anion), a coupler, a binder, and, if necessary, other additives. Thus, a 1.2 m2 poly(ethylene terephthalate) support was coated with a composition containing 2-pyrrolidino-5-acetylamino-benzenediazonium tetrafluoroborate 12, β -naphthol 10, sulfosalicylic acid 2.5 g, and a 10% CH2Cl2-MeOH solution of cellulose acetate 100 mL, dried to give a yellow-orange transparent film, imagewise exposed through a filter at 440 nm, and developed in a moist NH3 atmospheric to give a violet pos. image of the original upon a clear background.

IT 101152-85-6
 RL: USES (Uses)
 (diazo copying materials containing, blue light-sensitive, with improved

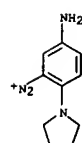
L4 ANSWER 24 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L4 ANSWER 24 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 coupling activity and thermal stability and decreased fog formation)
 RN 101152-85-6 CAPLUS
 CN Benzenediazonium, 5-amino-2-(1-pyrrolidinyl)-, (T-4)-tetrachlorozincate(2-), phenyl phosphate (2:1:1) (9CI) (CA INDEX NAME)
 CM 1
 CRN 701-64-4
 CMF C6 H7 O4 P



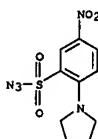
CM 2
 CRN 101152-84-5
 CMF C10 H13 N4 . 1/2 C14 Zn
 CM 3
 CRN 101152-83-4
 CMF C10 H13 N4



CM 4
 CRN 15201-05-5
 CMF C14 Zn
 CCI CCS

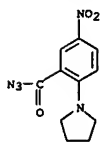
L4 ANSWER 25 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1975:156229 CAPLUS
 DOCUMENT NUMBER: 82:156229
 TITLE: Heterocyclic syntheses. XXVIII. ortho-(Dialkylamino)benzenesulfonyl azides, -benzoyl azides, and -benzoyldiazomethanes
 AUTHOR(S): Martin, John; Meth-Cohn, Otto; Suschitzky, Hans
 CORPORATE SOURCE: Ramage Lab., Univ. Salford, Salford, UK
 SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1974), (21), 2451-8
 CODEN: JCFR84; ISSN: 0300-922X
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 82:156229
 GRAPHIC IMAGE: For diagram(s), see printed CA Issue.
 ABSTRACT: 2-(Dialkylamino)-5-nitrobenzenesulfonyl azides, prepared from the 2-chloro-5-nitrobenzenesulfonyl azide and base, underwent thermal decomposition by attack on the o-N to give mesionic spirobenzothiadiazoles (eg. I) which subsequently underwent Cope or Curtius rearrangements, ring opening or dealkylation. Thermal decomposition with base hydrochloride gave a dihydrobenzothiadiazine by attack on an N-methylene group. Photolytic decomposition of the sulfonyl azides occurred via a sulfoximide intermediate. o-(Dialkylamino)benzoyl azides decomposed spontaneously by a Curtius rearrangement. o-(Dialkylamino)benzoyldiazomethanes, prepared from CH2N2 and ammonitrobenzoyl chlorides, on thermolysis gave a mixture of products. The piperidino derivative decomposed spontaneously via a mesionic intermediate.

IT 35032-61-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and thermal decomposition of)
 RN 35032-61-2 CAPLUS
 CN Benzenesulfonyl azide, 5-nitro-2-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



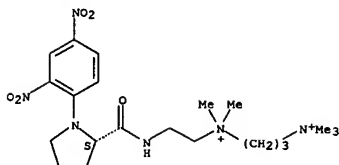
IT 55259-25-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 55259-25-1 CAPLUS
 CN Benzoyl azide, 5-nitro-2-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 25 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



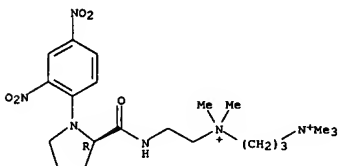
L4 ANSWER 26 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1975:1223 CAPLUS
 DOCUMENT NUMBER: 82:1223
 TITLE: Topography of nucleic acid helices in solution. XXVII. Dissymmetric recognition of the helical sense of deoxyribonucleic acid and evidence for binding of reporter molecules from the minor groove of DNA
 AUTHOR(S): Gabbay, Edmond J.; Sanford, Karl
 CORPORATE SOURCE: Dep. Chem., Univ. Florida, Gainesville, FL, USA
 SOURCE: Bioorganic Chemistry (1974), 3(2), 91-102
 CODEN: BOCHBM; ISSN: 0045-2068
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ABSTRACT: Through the utilization of optically active dinitrophenyl (DNP) derivs. of L- and D-proline, evidence is presented which suggests that nucleic acids exist as right-handed helices in solution. The results of uv absorption, CD, PMR, Tm of the helix-coil transition, viscometric, and binding studies are consistent with the above interpretation. Several types of DNA [i.e., salmon sperm, calf thymus, Micrococcus luteus, poly d(A-T)-poly d(A-T), and poly d(I-C)-poly d(I-C)] are shown to exist in a right-handed helical structure in solution. In addition, evidence is presented which strongly indicates that the 2,4-dinitroaniline ring of DNP-proline is intercalated between base pairs of DNA and the prolyl side chain situated in the minor groove. Moreover, it is shown that the more sterically hindered DNP derivs. exhibit a higher selectivity for A-T binding sites.
 IT 36703-12-5 36703-13-6
 RL: BIOL (Biological study)
 (intercalation of, with DNAs in solution)
 RN 36703-12-5 CAPLUS
 CN 1,3-Propanediaminium, N-[2-[[[1-(2,4-dinitrophenyl)-2-pyrrolidinyl]carbonyl]amino]ethyl]-N,N,N',N'-pentamethyl-, dibromide (9CI) (CA INDEX NAME)
 Absolute stereochemistry.

L4 ANSWER 26 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

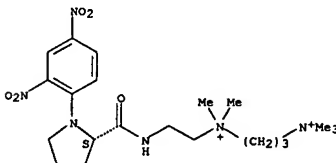
● 2 Br⁻

RN 36703-13-6 CAPLUS
 CN 1,3-Propanediaminium, N-[2-[[[1-(2,4-dinitrophenyl)-2-pyrrolidinyl]carbonyl]amino]ethyl]-N,N,N',N'-pentamethyl-, dibromide, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

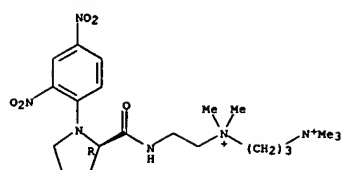
● 2 Br⁻

L4 ANSWER 27 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1972:402030 CAPLUS
 DOCUMENT NUMBER: 77:2030
 TITLE: Topography of nucleic acid helices in solutions. XXV.
 AUTHOR(S): Gabbay, Edmond J.; Sanford, Karl; Baxter, Stuart
 CORPORATE SOURCE: Dep. Chem., Univ. Florida, Gainesville, FL, USA
 SOURCE: Journal of the American Chemical Society (1972), 94(8), 2876-7
 CODEN: JACSAT; ISSN: 0002-7863
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GRAPHIC IMAGE: For diagram(s), see printed CA Issue.
 ABSTRACT: The dissymmetric recognition of the helical sense of native DNA in solution can be accomplished via the interaction specificities of the dinitrophenyl-derivs. of L- and D-prolines. The results of the absorption, CD, viscosity, PMR, and binding studies are consistent with a right-handed helical structure for native DNA in solution, in agreement with the Watson-Crick-Wilkins model.
 IT 36703-12-5 36703-13-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with DNA, helical sense determination in relation to)
 RN 36703-12-5 CAPLUS
 CN 1,3-Propanediaminium, N-[2-[[[1-(2,4-dinitrophenyl)-2-pyrrolidinyl]carbonyl]amino]ethyl]-N,N,N',N'-pentamethyl-, dibromide (9CI) (CA INDEX NAME)
 Absolute stereochemistry.

● 2 Br⁻

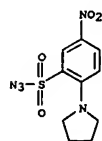
RN 36703-13-6 CAPLUS
 CN 1,3-Propanediaminium, N-[2-[[[1-(2,4-dinitrophenyl)-2-pyrrolidinyl]carbonyl]amino]ethyl]-N,N,N',N'-pentamethyl-, dibromide, (R)- (9CI) (CA INDEX NAME)
 Absolute stereochemistry.

L4 ANSWER 27 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

● 2 Br⁻

L4 ANSWER 28 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1972:25189 CAPLUS
 DOCUMENT NUMBER: 76:25189
 TITLE: Decomposition of ortho-secondary amino-substituted arenesulfonyl azides and carbonyl azides
 AUTHOR(S): Martin, J.; Meth-Cohn, O.; Suschitzky, H.
 CORPORATE SOURCE: Dep. Chem. Appl. Chem., Univ. Salford, Salford, UK
 SOURCE: Journal of the Chemical Society [Section] D: Chemical Communications (1971), (20), 1319-20
 CODEN: CCJDAO; ISSN: 0577-6171
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GRAPHIC IMAGE: For diagram(s), see printed CA Issue.
 ABSTRACT: Pyrolysis in PhCl of 9 5-nitro-2-(dialkylamino)benzenesulfonyl azides gave 60-80% thiadiazole dioxides, e.g. I and II [R = Et or (CH2)4CH:CH2]. Pyrolysis of the corresponding 5-nitro-2-(dialkylamino)benzoyl azides gave 5-nitro-2-(dialkylamino)phenyl isocyanates.

IT 35032-61-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (pyrolysis of, cyclization in relation to)
 RN 35032-61-2 CAPLUS
 CN Benzenesulfonyl azide, 5-nitro-2-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



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L5	8	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	"RAMOS LAURE"/AU
L6	39	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	"SABELLE STEPHANE"/AU
L7	42	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L5 OR L6
L8	30	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L7 AND (PYRROLIDINE OR PARAPHENYLENEDIAMINE OR PHENYLENEDIAMINE)
L9	8	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L8 AND CATIONIC

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L9 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:959737 CAPLUS

DN 143:271928

TI Hair dye compositions containing secondary N-alkylpolyhydroxylated p-phenylenediamines

IN Sabelle, Stephane; Blaise, Christian; Breton, Philippe; Vandenbossche, Jean Jacques

PA L'oreal, Fr.

SO Fr. Demande, 49 pp.

CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 2866876	A1	20050902	FR 2004-2020	20040227
EP 1580184	A1	20050928	EP 2005-290352	20050217
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
JP 2005239734	A2	20050908	JP 2005-92691	20050228
PRAI FR 2004-2020	A	20040227		
OS MARPAT 143:271928				
AB New secondary N-alkylpolyhydroxylated p-phenylenediamines (Markush structures given), their preparation and use in oxidative hair dyes are claimed. Thus, 2-(4-amino-phenylamino)octadecane-1,3-diol dihydrochloride (I) was prepared by the reduction of 2-(4-nitrophenylamino)octadecane-1,3-diol (preparation given) and reaction with HCl gas. A hair dye contained I 10-3, benzene-1,3-diol 10-3, and excipients qs to 100%.				
RE.CNT 2				
THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD				
ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L9 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:954027 CAPLUS

DN 143:271924

TI Hair dye compositions comprising sulfur-containing secondary phenylenediamines

IN Sabelle, Stephane

PA L'oreal, Fr.

SO Eur. Pat. Appl., 56 pp.

CODEN: EPXXDW

DT Patent

LA French

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1568687	A1	20050831	EP 2005-290420	20050224
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
FR 2866882	A1	20050902	FR 2004-2016	20040227
JP 2005263806	A2	20050929	JP 2005-92694	20050228
PRAI FR 2004-2016	A	20040227		
OS MARPAT 143:271924				
AB Hair dye compns. comprising sulfur-containing secondary phenylenediamines. The preparation of these compds. is also disclosed. Thus, a hair dye formulation contained N-2-[(4-aminophenylamino)ethyl]benzenesulfonamide 10-3, and 5-amino-2-methylphenol 10-3 mole, conventional additives, and water qs to 100 g.				
RE.CNT 10				
THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD				
ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L9 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:954026 CAPLUS

DN 143:253473

TI Hair dye compositions comprising aminoalkyl-substituted secondary phenylenediamines

IN Sabelle, Stephane

PA L'oreal, Fr.

SO Eur. Pat. Appl., 66 pp.

CODEN: EPXXDW

DT Patent

LA French

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1568686	A1	20050831	EP 2005-290424	20050224
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
FR 2866880	A1	20050902	FR 2004-2021	20040227
JP 2005239728	A2	20050908	JP 2005-92685	20050228
PRAI FR 2004-2021	A	20040227		
OS MARPAT 143:253473				
AB Hair dye compns. comprise alkylamine-substituted secondary p-phenylenediamines. The preparation of these compds. is also disclosed. Thus, a hair dye formulation contained N-1-[3-diethylaminopropyl]-2-methylbenzene-1,4-diamine-2HCl 10-3, and 5-amino-2-methylphenol 10-3 mole, conventional additives, and water qs to 100 g.				
RE.CNT 4				
THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD				
ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L9 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:953986 CAPLUS

DN 143:253442

TI Hair dye compositions comprising hydroxyalkyl-substituted secondary phenylenediamines

IN Sabelle, Stephane

PA L'oreal, Fr.

SO Eur. Pat. Appl., 66 pp.

CODEN: EPXXDW

DT Patent

LA French

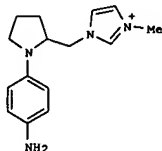
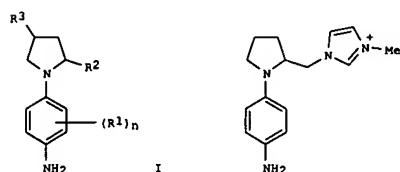
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1568355	A1	20050831	EP 2005-290425	20050224
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
FR 2866875	A1	20050902	FR 2004-2019	20040227
JP 2005239732	A2	20050908	JP 2005-92689	20050228
PRAI FR 2004-2019	A	20040227		
OS MARPAT 143:253442				
AB Hair dye compns. comprise hydroxyalkyl-substituted secondary phenylenediamines. The preparation of these compds. is also disclosed. Thus, a hair dye formulation contained 2-[2-(4-amino-2-methylphenylamino)ethylamine]-2HCl 10-3, and 5-amino-2-methylphenol 10-3 mole, conventional additives, and water qs to 100 g.				
RE.CNT 3				
THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD				
ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L9 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:796305 CAPLUS
 DN 141:295851
 TI Preparation of p-phenylenediamines with a disubstituted pyrrolidine group, bearing a cationic radical and their use for dyeing keratinic fibers
 IN Ramos, Laure; Sabelle, Stephane
 PA L'oreal, Fr.
 SO Eur. Pat. Appl., 32 pp.
 CODEN: EPXXDW
 DT Patent
 LA French
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1462453	A1	20040929	EP 2004-290635	20040309
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,				
FR 2852953	A1	20041001	FR 2003-3873	20030328
JP 2004300155	A2	20041028	JP 2004-93404	20040326
US 2004248961	A1	20041209	US 2004-810814	20040329
FR 2003-3873	A	20030328		
US 2003-469013P	P	20030509		
MARPAT 141:295851				

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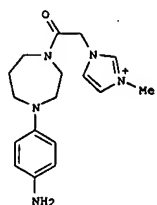
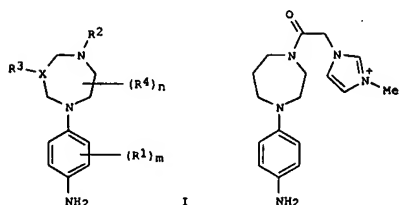
AB Title compds. I [wherein n = 0-4; when n ≥ 2, R1 can be identical or different; R1 = halo, Z, (un)saturated (un)substituted aliphatic or alicyclic hydrocarbonyl, optionally containing one or more O, Si, S, or SO2; R1 is not -O-O-, diazo, nitro or nitroso; R2 = Z, CO2H and derivs., monoalkyl/dialkyl/carbamoyl, etc.; R3 = Z, H, OH and derivs., NH2 and derivs., SH, CO2H and derivs., monoalkyl/dialkylcarbamoyl, alkylsulfonyl, alkyl, etc.; provided that at least one of R2 and R3 is an onium radical; Z = onium radical selected from trialkylammonium, pyridinium, 1H-imidazol-3-ium; 3H-imidazol-1-ium, etc.; and their addition salts] were prepared as oxidation bases for dyeing keratinous fibers, in particular human

L9 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 hair fibers. For example, II=Cl=HCl was prepd., in 3 steps, via substitution of 2-chloromethyl-1-(4-nitrophenyl)pyrrolidine (prepn. given) in N-methylimidazole in toluene at reflux for 9 h, and hydrogenation of the nitro deriv. over Pd/C. Formulations of II=Cl=HCl in acidic medium gave blue-violet and gray shades.

L9 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:796300 CAPLUS
 DN 141:295850
 TI Preparation of p-phenylenediamines with a cyclic diaza group substituted by a cationic radical, and their use for dyeing keratinic fibers
 IN Sabelle, Stephane; Genet, Alain; Leduc, Madeleine
 PA L'oreal, Fr.
 SO Eur. Pat. Appl., 35 pp.
 CODEN: EPXXDW
 DT Patent
 LA French
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1462445	A1	20040929	EP 2004-290723	20040317
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,				
FR 2852955	A1	20041001	FR 2003-3548	20030324
JP 2004292448	A2	20041021	JP 2004-85683	20040323
US 2005066451	A1	20050331	US 2004-807162	20040324
FR 2003-3548	A	20030324		
US 2003-467123P	P	20030502		
MARPAT 141:295850				

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AB Title compds. I [wherein X = (CH2)q; m = 0-4; when m ≥ 2, R1 can be identical or different; n = 0-4; when n ≥ 2, R4 can be identical or different; q = 0-1; R1 = Z, halo, (un)saturated aliphatic or alicyclic hydrocarbonyl with at least one carbon replaced by O, N, Si, S, SO2; R2 = Z; R3 = alkenyl, alkynyl, hydroxy/alkoxy/hydroxyalkoxy/amino/carboxy/carbamoyl/alkyl, OH, alkoxy, alkylcarbamoyl, monoalkyl/dialkyl/amino, etc.; R4 = alkenyl, alkynyl, hydroxy/alkoxy/hydroxyalkoxy/amino/carboxy/carbamoyl/alkyl, alkylcarbamoyl, CO2H, carbamoyl, etc.; and their addition salts] were prepared as oxidation bases for dyeing keratinous fibers, in particular human

L9 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 hair fibers. For example, II=Cl=HCl was prepd. by acylation of 1-(4-nitrophenyl)-1,4-diazepane with chloroacetyl chloride, amination of the chloride with 1-methyl-1H-imidazole, hydrogenation of the nitrophenyl intermediate over Pd/C, followed by acidulation with HCl. Formulations of II=Cl=HCl in acidic medium gave blue-violet and violet-gray shades.

L9 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:794536 CAPLUS
 DN 141:282418
 TI Composition for dyeing of keratinic fibers comprising a cationic derivative of p-phenylenediamine substituted by a diazacyclohexane or a diazacycloheptane
 IN Genet, Alain; Sabelle, Stephane
 PA L'oreal, Fr.
 SO Eur. Pat. Appl., 25 pp.
 CODEN: EPXXDW
 DT Patent
 LA French
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FI EP 1462091	A1	20040929	EP 2004-290711	20040316
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,				
HR FR 2852830	A1	20041001	FR 2003-3547	20030324
JP 2004285069	A2	20041014	JP 2004-85681	20040323
US 2004237216	A1	20041202	US 2004-807167	20040324
PRAI FR 2003-3547	A	20030324		
US 2003-506766P	P	20030930		
OS MARPAT 141:282418				

AB Comps. for dyeing of keratinic fibers, e.g. hair, comprises an oxidation base, a cationic derivative of p-phenylenediamine substituted by a diazacyclohexane or a diazacycloheptane. 4-(4-amino-phenyl)-1,1-dimethyl-(1,4)diazepan-1-ium chloride, dihydrochloride (I) was prepared by hydrogenation of 1,1-dimethyl-4-(4-nitrophenyl)(1,4)diazepan-1-ium chloride in presence of Pd/C. A hair dye contained I 10-3, 2-(2,4-diamino-phenoxy)ethanol dihydrochloride 10-3, excipients and water q.s. 100 g.

L9 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2001:693042 CAPLUS
 DN 135:262002
 TI Dyeing compositions for keratinous fibers containing para-phenylenediamine derivatives with pyrrolidinyl group
 IN Vidal, Laurent; Terranova, Eric; Sabelle, Stephane
 PA L'oreal, Fr.
 SO PCT Int. Appl., 73 pp.
 CODEN: PIXXD2
 DT Patent
 LA French
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FI WO 2001068043	A2	20010920	WO 2001-FR745	20010313
WO 2001068043	A3	20020307		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OL, OM, OS, PA, PE, PG, PH, PI, PK, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
R: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
FR 2806299	A1	20010921	FR 2000-3250	20000314
FR 2806299	B1	20021220		
CA 2373670	AA	20010920	CA 2001-2373670	20010313
BR 2001005802	A	20020326	BR 2001-5802	20010313
EP 1200052	A2	20020502	EP 2001-913996	20010313
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003526647	T2	20030909	JP 2001-566510	20010313
RU 2223743	C2	20040220	RU 2001-133389	20010313
AU 774341	B2	20040624	AU 2001-39388	20010313
AU 2001039388	A3	20010924		
CN 1532193	A	20040929	CN 2004-10032201	20010313
US 2003093866	A1	20030522	US 2002-959913	20020409
PRAI FR 2000-3250	A	20000314		
WO 2001-FR745	W	20010313		
OS MARPAT 135:262002				

AB The invention concerns novel dyeing compns. for keratinous fibers comprising at least a paraphenylenediamine derivative with pyrrolidinyl group as oxidation base, a dyeing method and a dyeing kit using said composition. Thus, 1-(4-amino-3-methylphenyl)pyrrolidin-3-ol (I) was prepared by the hydrogenation of 1-(4-nitro-3-methylphenyl)pyrrolidin-3-ol (preparation given). An oxidative hair dye preparation contained I 3x10⁻³, 2,4-diamino-1-(β-hydroxyethyloxy)benzene. dihydrochloride 3x10⁻³ mole, excipient and water q.s. 100 g. Equal amount of the composition is mixed with 6% hydrogen peroxide and applied on 90% white hair for 30 min, the hair is then rinsed, washed with shampoo, and dried to obtain a blue color.

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L1 FILE 'REGISTRY' ENTERED AT 09:26:13 ON 28 NOV 2005
STRUCTURE UPLOADED

D

L2 4 SEA SSS SAM L1

L3 203 SEA SSS FUL L1

FILE 'CAPLUS' ENTERED AT 09:26:51 ON 28 NOV 2005

L4 28 SEA ABB=ON PLU=ON L3

D QUE L4 STAT

D 1-28 IBIB IABS HITSTR

E RAMOS LAURE/AU

L5 8 SEA ABB=ON PLU=ON "RAMOS LAURE"/AU

E SABELLE STEPHANE/AU

L6 39 SEA ABB=ON PLU=ON "SABELLE STEPHANE"/AU

L7 42 SEA ABB=ON PLU=ON L5 OR L6

L8 30 SEA ABB=ON PLU=ON L7 AND (PYRROLIDINE OR PARAPHENYLENEDIAMINE
OR PHENYLENEDIAMINE)

L9 8 SEA ABB=ON PLU=ON L8 AND CATIONIC

D QUE L9

D 1-8 BIB ABS

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 27 NOV 2005 HIGHEST RN 868740-80-1

DICTIONARY FILE UPDATES: 27 NOV 2005 HIGHEST RN 868740-80-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS
for details.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

FILE CAPLUS

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FILE LAST UPDATED: 27 Nov 2005 (20051127/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

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